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**MOFFAT®**

# E35 CONVECTION OVEN

# SERVICE MANUAL

 **turbofan®**



**WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY  
QUALIFIED PERSONS ONLY.**

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# CONTENTS

This manual is designed to take a more in depth look at the E35 convection oven for the purpose of making the unit more understandable to service people.

There are settings explained in this manual that should never require to be adjusted, but for completeness and those special cases where these settings are required to change, this manual gives a full explanation as to how, and what effects will result.

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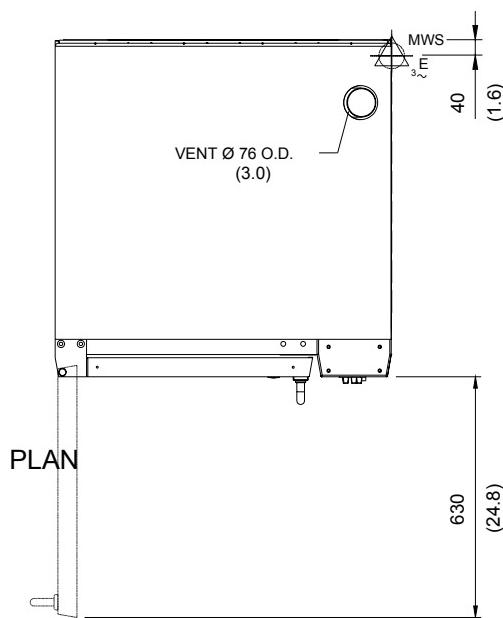
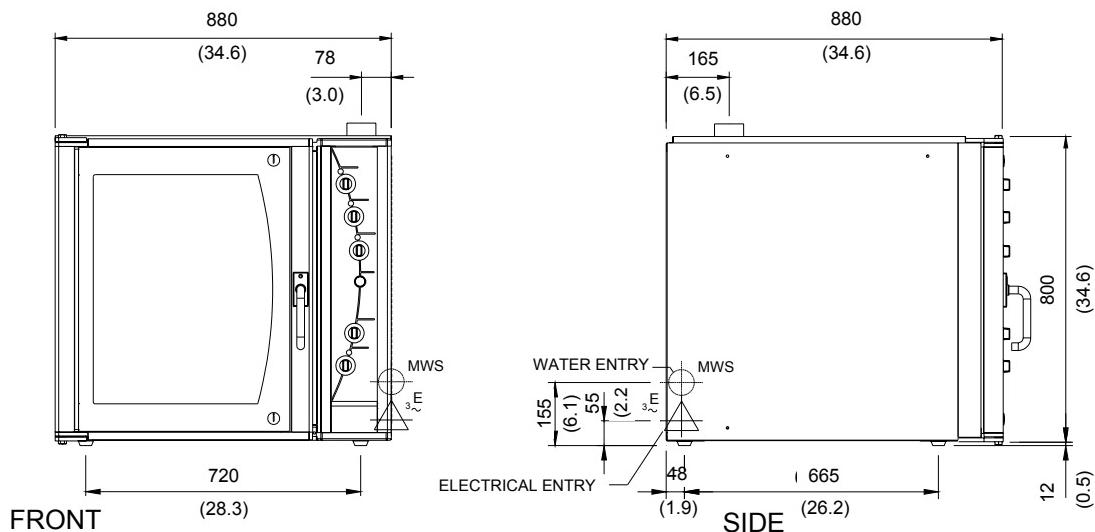
**IMPORTANT:** MAKING ALTERATIONS MAY VOID WARRANTIES AND APPROVALS.

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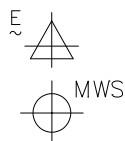
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# 1. SPECIFICATIONS

## MODEL: E35-26



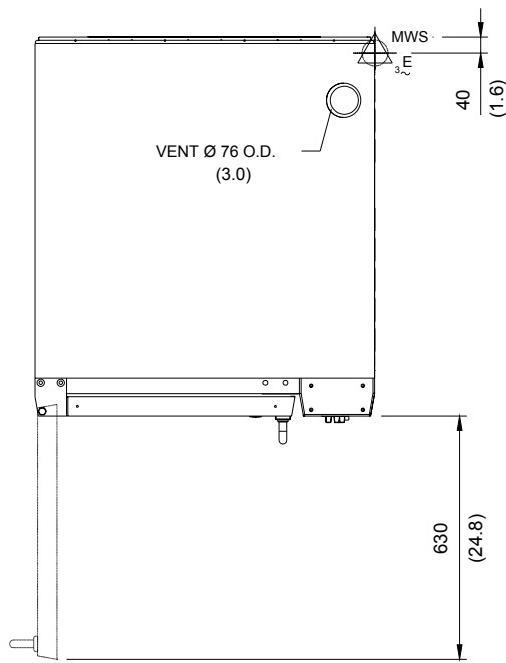
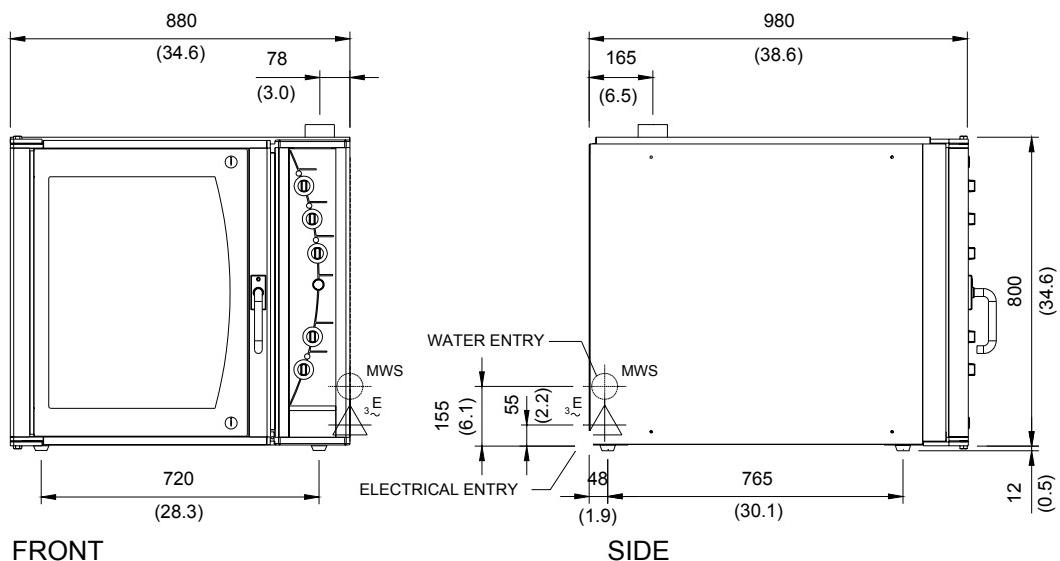
## LEGEND



- Electrical connection entry point
- Water entry - 3/4" BSP hose connection

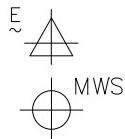
Dimensions shown in millimetres.  
Dimensions in inches shown in brackets.

## MODEL: E35-30



PLAN

### LEGEND



- Electrical connection entry point
- Water entry - 3/4" BSP hose connection

Dimensions shown in millimetres.  
Dimensions in inches shown in brackets.

## **LOCATION**

To ensure correct ventilation for the motor and controls the following minimum installation clearances are to be adhered to:

Rear	0mm / 0"
Left-hand side	0mm / 0"
Right-hand side	75mm / 3.0"

## **WATER SUPPLY CONNECTION**

Max Pressure 550 kPa / 5.5 bar / 80 psi  
Min Pressure 100 kPa / 1.0 bar / 15 psi

## **OVEN INTERNAL DIMENSIONS**

### **E35-26**

Width	465mm / 18 <sup>1</sup> / <sub>4</sub> "
Height	685mm / 27"
Depth	760mm / 30"
Oven Volume	0.24m <sup>3</sup> / 8.5ft <sup>3</sup>

### **E35-30**

Width	465mm / 18 <sup>1</sup> / <sub>4</sub> "
Height	685mm / 27"
Depth	860mm / 34"
Oven Volume	0.27m <sup>3</sup> / 9.7ft <sup>3</sup>

## **OVEN RACK SIZE**

Width	460mm / 18" or 405mm / 16"
	(Adjustable shelf width)
Depth	660mm / 26" or 760mm / 30"

(Based on oven size model)

## **OVEN RACK SPACING**

6 Tray (standard)	105 mm / 4 <sup>1</sup> / <sub>8</sub> "
8 Tray (option)	78 mm / 3"

## **ELECTRICAL SUPPLY SPECIFICATION**

### **OPTIONS**

208V, 60Hz, 1P+N+E, 53.7A, 11.2 kW
220V, 50Hz, 1P+N+E, 56.8A, 12.5 kW
220-240V, 60Hz, 1P+N+E, 52.0A, 12.5 kW
230-240V, 50Hz, 1P+N+E, 52.0A, 12.5 kW
208V, 60Hz, 3P+E, 31A/Ph, 11.2 kW
220V, 50Hz, 3P+E, 33A/Ph, 12.5 kW
220-240V, 60Hz, 3P+E, 50.7A/Ph, 12.5 kW
220V, 60Hz, 3P+E, 32.8A/Ph, 12.5kW
380V, 60Hz, 3P+N+E, 18.9A/Ph, 12.5kW
380V, 50Hz, 3P+N+E, 18.9A/Ph, 12.5 kW
400-415V, 50Hz, 3P+N+E, 17.4A/Ph, 12.5 kW
400-415V, 50Hz, 3P+N+E, 11A/Ph, 8kW

## **ELECTRICAL CONNECTION WIRE**

### **CONDUCTOR SIZES**

1P+N+E/Gnd	6AWG/10mm <sup>2</sup> Copper T75 min
3P+E/Gnd	10AWG/6mm <sup>2</sup> Copper T75 min
3P+N+E/Gnd	12AWG/4mm <sup>2</sup> Copper T75 min

## 2. INSTALLATION



**WARNING: THIS APPLIANCE MUST BE GROUNDED.**



**WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.**

It is most important that the oven is installed correctly and that the operation is correct before use. Installation shall comply with local electrical, health and safety requirements.

### BEFORE CONNECTION TO POWER SUPPLY

Unpack and check unit for damage and report any damage to the carrier and dealer. Report any deficiencies to your dealer. Fit the feet which are packed inside the oven. Check that the available power supply is correct to that shown on the rating plate located on the right-hand side panel.

208V, 60Hz, 1P+N+E, 53.7A, 11.2 kW  
220V, 50Hz, 1P+N+E, 56.8A, 12.5 kW  
220-240V, 60Hz, 1P+N+E, 52.0A, 12.5 kW  
230-240V, 50Hz, 1P+N+E, 52.0A, 12.5 kW  
208V, 60Hz, 3P+E, 31A/Ph, 11.2 kW  
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380V, 50Hz, 3P+N+E, 18.9A/Ph, 12.5 kW  
400-415V, 50Hz, 3P+N+E, 17.4A/Ph, 12.5 kW  
400-415V, 50Hz, 3P+N+E, 11A/Ph, 8kW

### LOCATION

To ensure correct ventilation for the motor and controls the following minimum installation clearances are to be adhered to:

Rear	0mm / 0"
Left-hand side	0mm / 0"
Right-hand side	75mm / 3.0"

Position the oven in its allocated working position. Use a spirit level to ensure the oven is level from side to side and front to back. (If this is not carried out, uneven cooking could occur). The feet/legs used with bench or floor mounting or provided with stands are adjustable and will require adjusting in levelling the unit. It should be positioned so the operating panel and oven shelves are easily reachable for loading and unloading.



**IMPORTANT: THE OVEN VENT LOCATED ON THE CABINET TOP MUST NEVER BE OBSTRUCTED.**

### Bench Mounting

For bench mounted applications the oven must be fitted with 100mm / 4inch feet.

### Floor Mounting

For floor mounted applications the oven must be fitted with 150mm / 6 inch legs.

**Note:** Four 100mm/4 inch or 150mm/6 inch adjustable legs are available separately from your E35 dealer as an optional extra.

### Stand Mounting

Ovens that are to be mounted on stands do not require feet or legs. Refer to Appendix B for stand mounting instructions.

Avoid having heat producing equipment such as fryers or steamers adjacent to the right-hand side of oven.

### BEFORE USE

Operate the oven for about 1 hour at 200°C (400°F) to remove any fumes or odours which may be present.

### ELECTRICAL CONNECTION

Remove side cover panel to allow access to the terminal block and strain relief cable clamp. The cable can be fitted through the entry grommet and secured from strain by tightening the fitted strain relief bushing. Connect cable to the terminals as marked. Refit cover panel.



**IMPORTANT: FIXED WIRING INSTALLATIONS MUST INCLUDE AN ALL-POLE DISCONNECTION SWITCH.**

Refer to specifications section for wire connections required, and supply connection conductor sizes.

## WATER CONNECTION

A cold water supply should be fitted to the water inlet ( $\frac{3}{4}$ " BSP hose connection) which is located on the rear of the right hand side of the unit.

Alternately, a connection elbow and sealing washer is supplied with this unit for direct connection of a  $\frac{1}{2}$ " ID hose, which is recommended for easy installation and service.

Connect water supply - Max inlet pressure 80psi / 550kPa.

Turn on water supply to check for leaks.

**! IMPORTANT:** MAXIMUM INLET WATER PRESSURE IS 550 kPa / 80 psi.

## DOUBLE STACKING UNITS

When it is desired to mount an E35 Turbofan oven on an E85 prover, a double stacking kit must be used. Available from your dealer or Turbofan distributor. (see Spare Parts).

When mounting one oven on top of another, a double stacking kit is also required.

For stacking kit assembly instructions, refer to Appendix A.

## RACK WIDTH POSITIONS

The E35 models have an adjustable rack width setting. This allows for the racking to be configured for 405mm/16" or 460mm/18" wide baking sheets/pans or racks.

Position the side racks in their innermost position for 16" trays and in their outermost position for 18" trays.

### Removal of Side Racks (as illustrated)

- 1) Lift the side rack off the bottom locating pins.
- 2) Move bottom of rack toward centre of oven.
- 3) Lower rack to clear top locating pins, and remove.

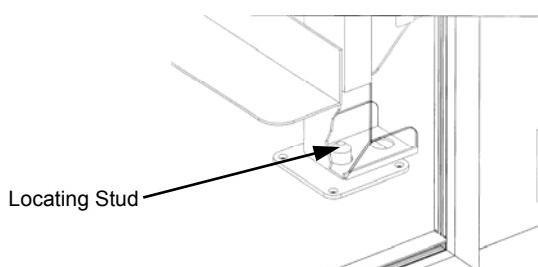


Figure 2.2

## Replacement of Side Racks

- 1) Insert rack into the oven, placing the appropriate holes over the top locating pins.
- 2) Lift the side rack over the bottom locating pins.
- 3) Lower rack with appropriate holes over bottom locating pins.

## RATING PLATE LOCATION

The rating plate for the E35 convection oven is located at the bottom left corner of the RH side panel. An internal rating plate is also located behind the RH side panel on the vertical dividing panel behind the electrical contactors. (Units manufactured from July 2002).

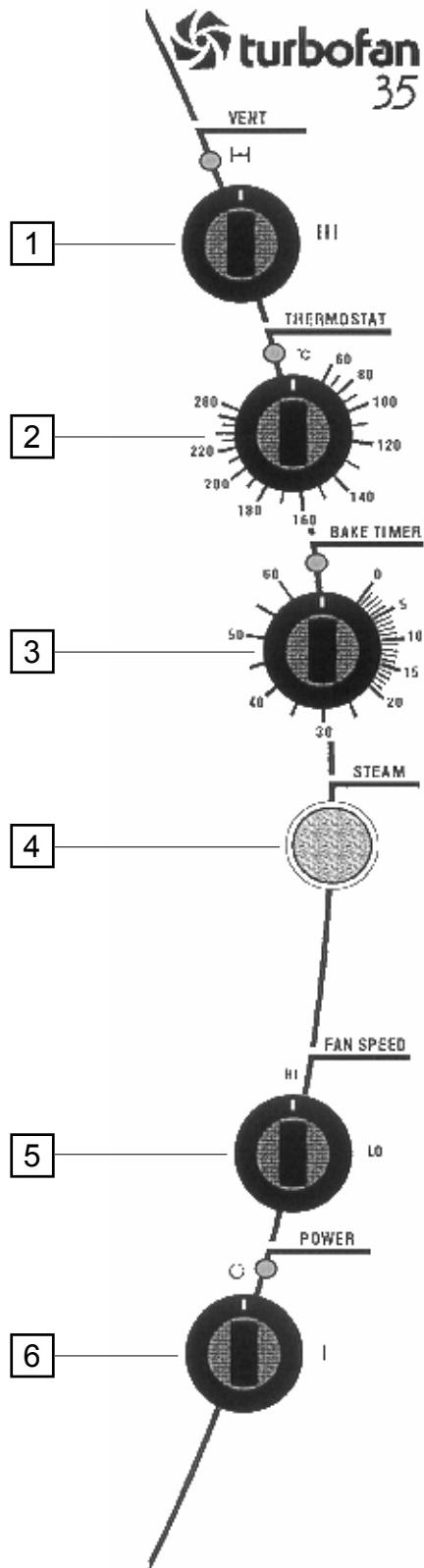


Figure 2.3

### 3. OPERATION

**NOTE:** A full user's operation manual is supplied with the product and can be used for further referencing of installation, operation and service.

#### 3.1 DESCRIPTION OF CONTROLS



##### 1. VENT

- |—| Oven vent closed (incorporates over-pressure relief when closed).
- |++| Oven vent open (light illuminates).

##### 2. THERMOSTAT

Temperature range 60 - 280°C / 100 - 550°F.  
(Light illuminates when elements are cycling ON to maintain set temperature).

##### 3. TIMER

1 Hour bake timer.  
(Light illuminates when "time up" (0) reached, and buzzer sounds).

##### 4. STEAM BUTTON

Push button to activate automatic steam dose into oven chamber.  
(Light illuminates when button activated for duration of steam cycle).

##### 5. FAN SPEED

- |H| Full fan speed (Star point connection on motor).
- |L| Half fan speed (Delta point connection on motor).

##### 6. POWER

- |O| UNIT IS OFF
- |I| UNIT IS ON (Light illuminates when switched to this position).  
Oven lights operate continuously.  
Fan starts after 10 seconds when door closed.

## **3.2 EXPLANATION OF CONTROL SYSTEM**

The E35 Turbofan convection oven features multi-function operator controls, and a combined fan motor and steam control system.

A correct understanding of their operation is required before carrying out any service or fault repair work. The control device functions are explained as follows:

### **Circuit Protection**

All models are fitted with a 3 pole circuit breaker, from which a control circuit is taken from L1 circuit breaker, and this control circuit is fitted with a 6A circuit breaker. The 3 pole main circuit breakers are rated 25A/pole for 3P+N+E/GND and 1P+N+E/GND supply models, and 40A/pole for 3P+E/GND (no neutral) models. These provide control circuit protection via the 6A circuit breaker, and load circuit protection via the 3 pole circuit breakers.

Additionally, the 3 pole circuit breaker is mechanically connected to a Shunt Trip breaker, which in the event of the oven fan motor overheating will trip the 3 pole circuit breakers to isolate power from the unit. The Shunt Trip is directly connected to thermal limit switches in the motor windings, and the supply Neutral (or L3 on 3 phase, no neutral models). A supply from the 6A control circuit breaker is connected to the motor thermal switches. Should any of the motor windings overheat, the thermal switches close and supply power to the Shunt Trip, which in turn trips (triggers) and mechanically trips the 3 pole circuit breaker.

Accordingly, causes of circuit breakers tripping can be ascertained with the above knowledge, and this is covered in more detail in the Fault Diagnosis section.

### **Power On/Off**

A Power switch on the control panel isolates power to the operator controls of the oven. With the power switch OFF all functions of the oven are inoperable.

An integral cooling fan, behind the control panel used to keep the electrical controls of the oven cool, is on continuously whenever the power supply to the oven is on. Switching the oven control panel Power switch off will leave the cooling fan running.

With the Power switch ON (illuminated neon indicator), power is supplied to all operator controls.

### **Oven Lamps**

The two oven lamps (12 volt halogen) are on whenever the Power switch is on. The oven lamps are supplied with 12 volts from an electronic lamp transformer fitted on the oven's control switchgear assembly. The oven lamps are on with the oven door open and closed.

### **Bake Timer**

The 60 minute bake timer is a mechanical timer and can therefore be operated with the oven's power ON or OFF. However only with the oven's power switch On and the oven door closed will the timer turn on the time-up buzzer and time-up indicator neon on the control panel. The buzzer and time-up indicator provide indication that the time setting has run down to zero and at this point will remain on continuously until the 60 minute timer has been manually set back to the Off (vertical) position. The 60 minute timer does not control any other part of the oven's operating system as the timer is independent of the temperature control, heating, fan, or steam system.

### **Oven Vent**

The oven vent is a manual operation by way of the Vent knob on the control panel.

The vent knob directly rotates the vent shaft through 90 degrees to open and close the vent. The vent shaft passes through a rotary switch mounted behind the control panel and this switch is used to switch on or off the Vent indicating neon. In the vent open position the indicator is illuminated. The oven vent restricts venting of the oven when in the closed position, however the vent flap is fitted with a spring loaded over-pressure flap which relieves excess pressure created during oven steaming. This avoids steam pressure escaping out of door seals etc, if the oven is steamed with the vent closed. The spring pressure on the over-pressure vent flap ensures that only excess steam is lost out of the vent.

### **Door Switch**

The oven has a door switch, mechanical micro-switch below oven opening, which breaks the power supply to the oven fan, temperature, and steam control circuits when the door is opened. Additionally, opening the oven door will remove power from the Bake Timer buzzer and indicator, and the vent position indicator neon.

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This allows only the oven lights to be operational if the oven door is opened.

### Thermostat Control

Heating of the oven is controlled by an electronic thermostat control, comprising of a potentiometer dial and knob on the control panel, a temperature sensing probe (thermistor type) in the oven chamber, and the thermostat control board behind the control panel. Power to the electronic thermostat is supplied through an over-temperature/hi limit thermostat. Accordingly a failure of the electronic thermostat control causing a temperature over-run will result in the over-temperature thermostat switching and removing power from the heating control circuit. The over-temperature thermostat is able to be manually reset, however a serviceman is required to perform this function, as removal of the R/H service panel is required to access this safety protection device.

The electronic thermostat when set to a temperature will illuminate the heating neon indicator on the control panel whenever the oven heating elements are on. When the indicator neon goes out, the oven is up to the set temperature.

### Heating / Elements

The electronic thermostat when requiring heating of the oven, switches power to the heating contactor (referred to as C1 contactor in this manual). The heating contactor closes to supply power through to the heating elements in the oven. In all ovens all 3 poles of the contactor are used to supply L1, L2, and L3 phase circuits to the 3 heating elements on each side of the oven fan motor.

**On 3 Phase + Neutral supply models**, all 6 elements are looped to neutral, and the 3 Phase power to the elements is to each set of three elements in parallel connection. Hence each of the elements is supplied with the Phase to Neutral voltage.

**On 3 Phase supply models (no neutral)**, the set of three elements each of the fan motor are connected in Delta configuration, which each element being supplied the Phase to Phase voltage.

**On 1 Phase + Neutral supply models**, all 6 elements are looped to neutral, and the 1 Phase power to the elements is split into three poles at the main circuit breakers on the oven, then feed through the three poles of the heating contactor, from where each pole is connected to two of the six elements in parallel. Hence each of the

elements is supplied with the Phase to Neutral voltage.

The heating elements are rated at 2000 Watts each, therefore providing a total of 12000 Watts or 12kW of heating.

In some cases special heating kilowatts may be supplied to special request, so always check rating plate information on the unit if in doubt.

The heating contactor cycles ON/OFF as controlled by the thermostat to maintain set oven temperature.

### Fan / Motor

The E35 Turbofan ovens use a dual speed, bi-directional oven fan circulation system, in order to provide even heat distribution through the oven, and fan speed control to suit different product types.

To provide both dual fan speed and bi-direction, a motor of 4pole/8pole configuration is used.

### Fan / Motor Direction

The direction change is made by swapping two phases to the motor through the motor contactors C2 and C3. In one direction L1, L2, and L3 are switched through motor contactor C2 with motor contactor C3 open. In the alternate direction, motor contactor C2 is open, and C3 is closed. L1 and L2 are reversed on the C3 contactor connections. Motor contactors C2 and C3 are mechanically interlocked (interlock fitted to rear of contactors) to prevent any switching overlap.

Motor direction change is automatic, and the duration of the direction cycle is factory set. Additionally, a dwell period between each change of direction occurs to allow the motor to restart in the opposite direction only after the motor rotation has slowed down. This is necessary to avoid motor overheating due to the high current load that would be required to change direction instantaneously.

Each direction cycle is 90 seconds long, at the beginning of which is a preset 10 second dwell/delay. As the dwell is at the beginning of the cycle, the fan always has a 10 second start delay when the oven is first turned on, or when the door is closed after opening.

The direction control timing is provided from three electronic timers mounted below the motor contactors on the electrical switchgear panel of the oven. Timer T1 controls the direction cycle time, timer T3 controls the dwell for one direction, and timer T5 controls the dwell for the opposite direction.

When the door is closed and power is ON, cycle timer T1 will switch power to dwell timer T3 for 90 seconds. Timer T3 will then switch power through to motor direction contactor C2 after the preset 10 second delay. The motor will then run for the remainder of the 90 second cycle.

At the completion of the 90 second cycle, cycle timer T1 will switch the power from T3 dwell timer to T5 dwell timer. This T3 dwell timer will then switch power through to the other motor direction contactor (refer previous) after the preset 10 second delay, and the motor will run in the opposite direction for the remainder of that 90 second cycle. At the completion of that cycle the cycle timer T1 switches power back to the other dwell timer, and this continues until the oven door is opened, or the power is turned off.

#### **Fan / Motor Speed**

For HI speed operation the motor is run as a 4 pole motor. (1420 rpm 50Hz/1750 rpm/60Hz) For LO speed operation the motor is run as an 8 pole motor. (715 rpm 50Hz/850 rpm/60Hz)

Selection of the pole configuration for run speed is made though the motor contactors C4, C5 and C6.

In HI speed setting the motor contactors C4 and C6 close, C4 switching power to the motor on the 4 pole connection leads, and C6 binding 4 of the 8 motor poles to allow motor to run as a 4 pole motor.

In LO speed setting the motor contactor C5 closes to switch power to the motor on the 8 pole connections leads, with contactors C4 and C6 remaining open.

Motor contactors C5 and C6 are mechanically interlocked (interlock fitted to rear of contactors) to prevent any switching overlap between LO and HI speed changes.

The motor speed control is by manual operation of the Fan Speed switch on the control panel. This rotary switch simply supplies power to either motor contactors C4 and C6 for HI speed, or C5 for LO speed. The contactors stay closed in the selected setting unless the oven door is opened. Closing the oven door allows the contactors to switch on again.

#### **Fan / Motor - Single Phase Models**

The operation of the fan motor on single phase E35 models is the same as other three phase models for two speed and bi-direction operation, except for the electrical circuit required.

On single phase models the same motor is used as on three phase models, but with capacitors in

the motor circuit to create an artificial phase lag, that is normally part of the three phase supply on three phase models. Use of the three phase motor is required to retain the bi-direction operation.

On single phase models the L1 supply to the motor connects to the normal L1 connection of the motor, and the Neutral supply connects to the normal L2 (as connected on three phase models) connection of the motor. A capacitor is then connected to the normal L3 (as connected on the three phase models) connection of the motor, and this capacitor is supplied power from the L1/Phase supply. This capacitor is referred to as the Run capacitor as it is permanently in the circuit during motor operation. Each motor on single phase models has two run capacitors, one for the LO speed operation (lower capacitance) and one for the HI speed operation (higher capacitance). Each Run capacitor is only used when the motor is running at that speed setting.

Additionally a Start capacitor is also fitted on single phase models, and is used for starting the motor rotation at the beginning of each direction change when in HI speed setting only. This capacitor is switched on for approximately 7 seconds only at the beginning of each motor start up, with a contactor C7 switching the Start capacitor on and off, and with a timer T6 controlling the timing of the contactor C7.

Fan direction change in single phase models is still controlled by motor contactors C2 and C3. However unlike three phase models where C2 and C3 swap phases over to change motor start rotation/direction, single phase models use C2 and C3 to switch the run capacitor form the L1 supply to the Neutral supply for direction change.

Control of the motor cycle timing and dwell timing is the same as three phase models.

#### **Motor Protection**

Refer Circuit Protection at start of section.

#### **Steam System**

The E35 Turbofan ovens feature an automatically timed oven chamber steaming system, that allows operators to inject a 10 second period of steam into the oven at any stage. The steam is generated when a solenoid valve opens and supplies mains water to a calibrated wide spray angle nozzle in the oven that discharges the water as a fine spray into the oven fan. The fine spray at a wide angle is then immediately thrown by the fan circulation across the oven heating elements either side of the fan. The fine spray instantaneously turns to steam on

the hot elements, which is supported by the hot air of the oven also turning the water droplets into steam.

The steam is initiated by depressing the Steam switch on the control panel. When depressed the steam switch provides power one of two Steam timers which are preset to 10 seconds steam cycle duration. These Steam timers are T2 and T4.

T2 is associated with fan dwell timer T3 and is used when steam is required during the fan direction cycle that uses the T3 dwell timer.

T4 is associated with fan dwell timer T5 and is used when steam is required during the fan direction cycle that uses the T5 dwell timer.

This ensures that steam can be used in either fan direction cycle, and additionally allows the fan to be turned on as soon as steam is activated, even if the fan was in a direction change dwell. Ensuring that the fan is running when steam is required is necessary to atomise the water droplets by the mechanical action of the fan, and by the fan throwing the water across the elements.

The Steam switch on the control panel only needs to be depressed momentarily as the duration of the steam injection is automatically timed by the steam timers. The Steam switch will illuminate for the duration of the steam injection to provide a visual confirmation of the steaming process. The light in the steam switch is independent of the switch contacts and is powered by the electrical circuit to the water solenoid valve. Therefore the switch is illuminated for as long as the water solenoid is open: 10 seconds.

## Summary of Components

The electrical switchgear (not user controls) components are summarised as follows:

- C1** Heating contactor  
Switches elements ON/OFF
- C2** Motor direction contactor  
Phases switched in line
- C3** Motor direction contactor  
Phases L1 and L2 swapped on 3 phase models  
Run capacitor swapped from L1 to Neutral on 1 phase models
- C4** Motor speed contactor  
HI speed
- C5** Motor speed contactor  
LO speed
- C6** Motor speed contactor  
HI speed (changes motor from 8 pole to 4 pole)
- T1** Fan cycle timer  
Direction cycle
- T2** Steam timer  
For T3 dwell direction
- T3** Fan dwell timer  
Alternate direction (always initial direction dwell)
- T4** Steam timer  
For T5 dwell direction
- T5** Fan dwell timer  
Alternate direction (always 2<sup>nd</sup> direction dwell)
- C7** Motor start capacitor contactor.  
(Single phase models only)
- T6** Motor start capacitor timer  
(Single phase models only)  
Motor contactor interlocks fitted to C2+C3 (mounted on rear on contactors)
- Motor contactor interlocks fitted to C5+C6 (mounted on rear on contactors)

The following Troubleshooting Guide should be used to identify any incorrect oven operation. On correct identification of the operating fault the Troubleshooting guide will make reference to the corrective action required, or refer to the Fault Diagnosis section and/or Service section to assist in correction of the fault.

## 4. MAINTENANCE

**⚠ WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.**

### 4.1 CLEANING

**⚠ WARNING: ALWAYS TURN THE POWER SUPPLY OFF BEFORE CLEANING.**

**! IMPORTANT:** THIS UNIT IS NOT WATER PROOF.  
DO NOT USE A WATER JET SPRAY TO CLEAN INTERIOR OR EXTERIOR OF THIS UNIT.

#### EXTERIOR

Clean with a good quality stainless steel cleaning compound. Harsh abrasive cleaners may damage the surface.

#### INTERIOR

Ensure that the oven chamber is cool. Do not use wire brushes, steel wool or other abrasive materials. Clean the oven regularly with a good quality oven cleaner. Take care not to damage the fan or the tube at the right side of the oven which controls the thermostat.

#### SIDE RACKS

To remove, follow instructions given in the installation section.

#### OVEN DOOR (HINGED GLASS)

**Outer surfaces:** Clean with conventional glass cleaners

**Inner surfaces:** To clean between the inner and outer door glasses, firstly ensure the door is locked shut. With a screwdriver, coin, or other suitable device,  $\frac{1}{4}$  turn the outer glass locks to release the outer glass and allow it to be hinged open for cleaning access (refer to figure 4.1 for correct procedure).

**! IMPORTANT:** ALWAYS ENSURE THAT THE OUTER GLASS IS HINGED CLOSED AND LOCKED INTO POSITION BEFORE OPENING DOOR.

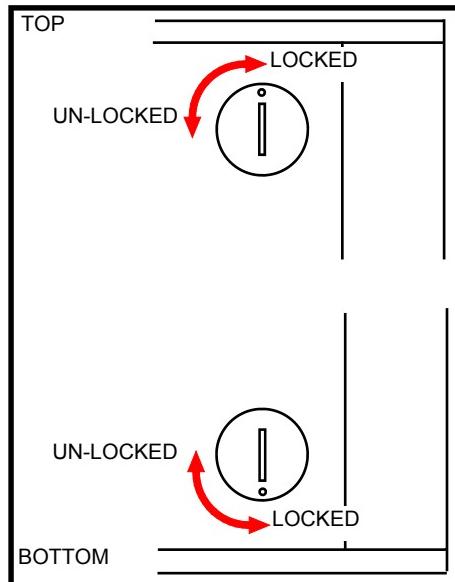


Figure 4.1

#### OVEN DOOR (HINGED GLASS)

**Outer surfaces:** Clean stainless steel with quality stainless steel cleaner.

**Inner surfaces:** Clean stainless steel with quality stainless steel cleaner.

**Door glass:** Clean with conventional glass cleaners.

#### OVEN SEALS

To remove, pull out the seal starting at each corner. The seal may be washed in the sink, but take care not to cut or damage it. To replace, fit the seal in at the corners first, then push in the rest of the seal.

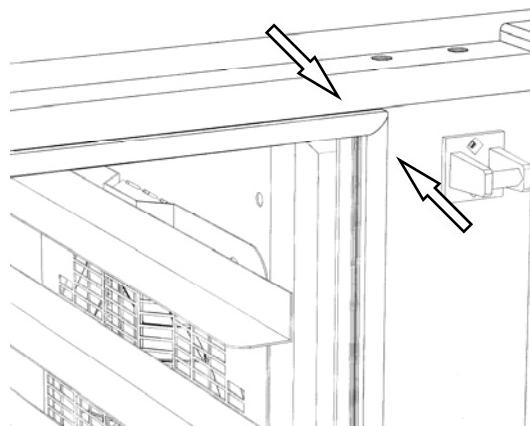


Figure 4.2

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## 4.2 ROUTINE PROCEDURES

	PROCEDURE	INTERVAL
DOOR SEALS	Check for deterioration.	12 months
DOOR PIVOT BUSHES	Check for wear.	12 months
DOOR CATCH	Ensure that catch is adjusted such that the door closes properly.	12 months
ELEMENT	Check that element resistance is correct to it's rating (refer 6.3.12).	12 months
WATER NOZZLE	Check for lime build-up in water nozzle.	12 months

## 5. TROUBLE SHOOTING

** WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.**

FAULT	POSSIBLE CAUSE	REMEDY
THE OVEN DOES NOT OPERATE / START	<p>The mains isolating switch on the wall, circuit breaker or fuses are "off" at the power board.</p> <p>The power switch on the oven is off ('0').</p> <p>Incorrect electrical supply.</p> <p>Oven circuit breaker tripped.</p> <p>Power switch on unit faulty.</p>	<p>Turn on.</p> <p>Turn switch to 'I' position.</p> <p>Ensure electrical supply correct.</p> <p>Identify fault. Reset circuit breaker.</p> <p>Replace. <b>(Refer service section 6.3.1)</b></p>
FAN DOESN'T OPERATE	<p>Door not closed. <i>(Fan only operates when the door is closed).</i></p> <p>Door microswitch out of adjustment.</p> <p>Door microswitch faulty.</p> <p>Fan motor faulty.</p> <p>Wiring.</p> <p>Fan timers.</p>	<p>Close door.</p> <p>Adjust. <b>(Refer service section 6.4.1)</b></p> <p>Replace. <b>(Refer service section 6.3.3)</b></p> <p>Replace. <b>(Refer service section 6.3.21)</b></p> <p>Check and tighten any loose wiring.</p> <p>Replace. <b>(Refer service section 6.3.11)</b></p>
STEAM LIGHT DOES NOT ILLUMINATE	Blown bulb.	Replace bulb.
NO STEAM <i>(continued next page)</i>	<p>Water not turned on.</p> <p>Blocked filter in water solenoid.</p> <p>Nozzle blocked.</p> <p>Check valve blocked/corroded.</p>	<p>Turn water on at isolating valve.</p> <p>Clean filter.</p> <p>Remove, clean or replace. <b>(Refer service section 6.3.16)</b></p> <p>Remove check valve. <b>(Refer service section 6.3.15)</b></p>

FAULT	POSSIBLE CAUSE	REMEDY
NO STEAM <i>(continued)</i>	Steam tube blocked. Faulty solenoid coil. Steam switch faulty. Timer faulty.	Remove, clean or replace. Replace. <b>(Refer service section 6.3.16)</b> Replace. <b>(Refer service section 6.3.14)</b> Adjust / Replace. <b>(Refer service section 6.3.11)</b>
STEAMS ONLY SOMETIMES	Steam timer faulty.	Replace. <b>(Refer service section 6.3.11)</b>
NO HEAT	Faulty contactor. Thermostat faulty.	Replace. <b>(Refer service section 6.3.11)</b> Replace. <b>(Refer service section 6.3.8)</b>
SLOW RECOVERY	Faulty contactor. Element(s) blown.	Replace. <b>(Refer service section 6.3.11)</b> Replace. <b>(Refer service section 6.3.12)</b>
NO TEMPERATURE CONTROL	Faulty door microswitch. Faulty heating contactor. Over-temperature control tripped. Faulty thermostat controls.	Adjust or replace. <b>(Refer service section 6.3.3)</b> Replace. <b>(Refer service section 6.3.11)</b> Reset. Replace. <b>(Refer service section 6.3.7)</b>
OVER-TEMPERATURE CONTROL TRIPS	Oven too hot, thermostat out of calibration. Over-temp out of calibration.	Replace. <b>(Refer service section 6.3.8)</b> Replace. <b>(Refer service section 6.3.13)</b>
TIMER WILL NOT TIME DOWN	Faulty timer.	Replace. <b>(Refer service section 6.3.18)</b>
NO TIME UP ALARM INDICATION	Faulty timer. Faulty buzzer.	Replace. <b>(Refer service section 6.3.18)</b> Replace. <b>(Refer service section 6.3.19)</b>
NO HIGH FAN SPEED	Fan selector switch faulty.	Replace. <b>(Refer service section 6.3.22)</b>
NO LOW FAN SPEED	Fan selector switch faulty.	Replace. <b>(Refer service section 6.3.22)</b>

FAULT	POSSIBLE CAUSE	REMEDY
OVEN LIGHTS NOT ILLUMINATING	Blown bulb(s).  Faulty lighting transformer.  <b>NOTE:</b> If both light bulbs have blown then there will be no output from the lighting transformer.	Replace. <b>(Refer service section 6.3.4)</b>  Replace. <b>(Refer service section 6.3.6)</b>
OVEN VENT INDICATOR NOT ILLUMINATING WHEN IN 'OPEN' POSITION	Indicator faulty.  Switch faulty.	Replace. <b>(Refer service section 6.3.2)</b>  Replace. <b>(Refer service section 6.3.23)</b>
OVER-PRESSURE VENT NOT OPERATING DURING STEAM CYCLE	Vent blocked.  Over-pressure vent mechanism restricted.	Remove and clean blockage.  Remove and clean.
DOOR DOES NOT CLOSE	Tray in way of door.  Door seal obstruction.  Door handle in wrong position.  Door setting incorrect.	Correctly position tray in rack.  Correctly install door seal. <b>(Refer maintenance section)</b>  Reposition door handle.  Adjust. <b>(Refer service section 6.4.3)</b>
DOOR SEAL LEAKS	Door seal damaged.  Door seal incorrectly fitted.	Replace. <b>(Refer maintenance section)</b>  Correctly install door seal. <b>(Refer maintenance section)</b>
RACKS DO NOT FIT	Incorrect pin location.	Relocate on correct pin.

## 6. SERVICE PROCEDURES



**WARNING: ENSURE POWER SUPPLY IS SWITCHED OFF BEFORE SERVICING.**



**WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY  
QUALIFIED PERSONS ONLY.**

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## 6.2 ACCESS

### 6.2.1 CONTROL PANEL

- 1) Remove vent knob by pulling straight off.
- 2) Remove screw above vent shaft.

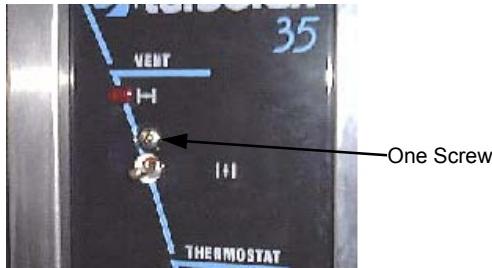


Figure 6.2.1

- 3) Panel is now free to hinge at bottom, take care not to drop panel or pull wires out. (support panel while working with panel open).

### 6.2.2 SERVICE (RH SIDE) PANEL

- 1) Undo the 4 screws holding panel.

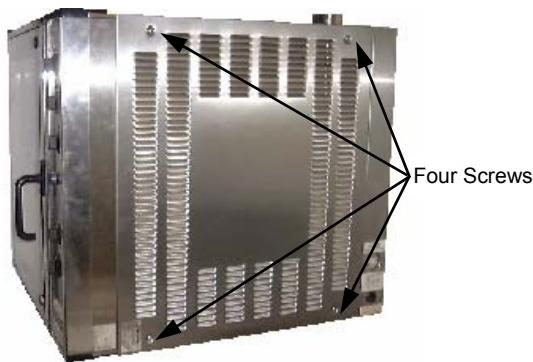


Figure 6.2.2

- 2) Remove panel.

### 6.2.3 BAFFLE

- 1) Remove racks, trays and RH side rack.
- 2) Undo the 4 nuts holding the baffle.
- 3) Pull panel off studs, pull bottom into middle of oven and remove panel.

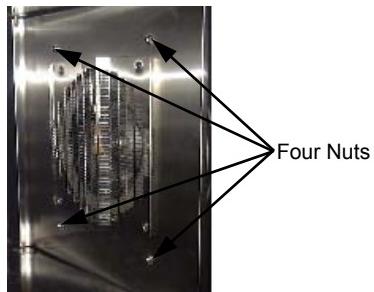


Figure 6.2.3

### 6.2.4 SIDE PANEL (LH SIDE)

- 1) Undo the 4 screws holding panel.
- 2) Remove panel.

### 6.2.5 CONTROL PANEL—REAR

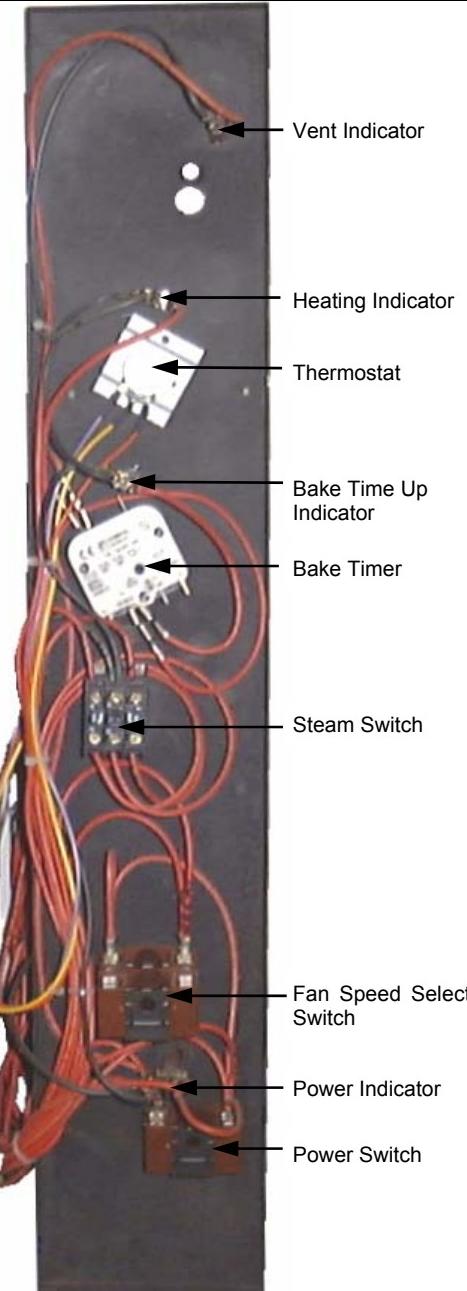


Figure 6.2.4

## 6.3 REPLACEMENT

### 6.3.1 POWER SWITCH

- 1) Pull knob off front of switch.
- 2) Open control panel (refer 6.2.1) and undo 2 screws securing switch.

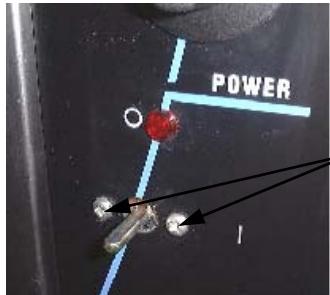


Figure 6.3.1

- 3) Transfer wires to new switch.
- 4) Withdraw old switch and insert new switch, securing with screws.

### 6.3.2 INDICATOR LIGHT

- 1) With control panel open (refer 6.2.1) remove wires from the back of the indicator.

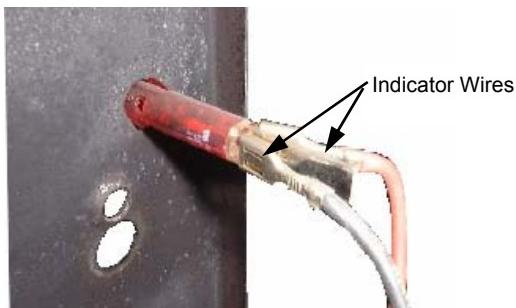


Figure 6.3.2

- 2) From back push indicator through front of panel rotating clockwise.
- 3) Push new indicator in from front of panel, and reconnect wires.

### 6.3.3 DOOR MICROSWITCH

- 1) Open oven door.
- 2) Remove nut on front of micro-switch.

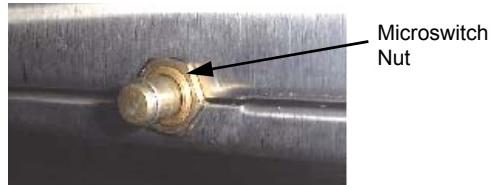


Figure 6.3.3

- 3) Remove 3 screws holding microswitch cover panel and drop panel down.

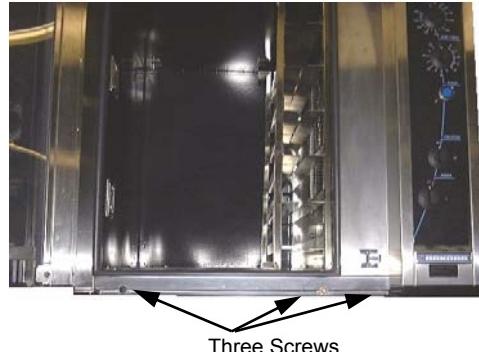


Figure 6.3.4

- 4) Remove 2nd nut on front of micro-switch, to free micro-switch. (Loosen / remove 2 bolts holding micro-switch bracket as required).

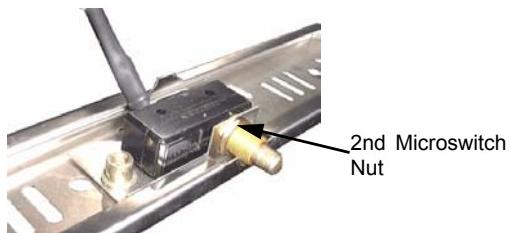


Figure 6.3.5

- 5) Transfer wires to new the new switch and re-assemble.

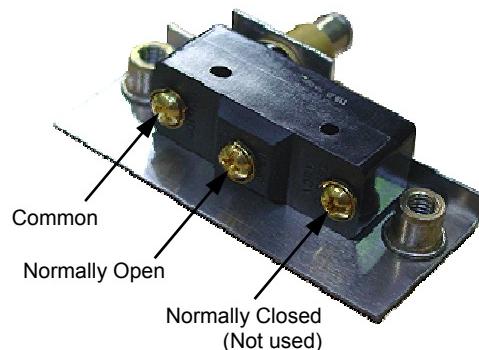


Figure 6.3.6

- 6) Adjust micro-switch (refer 6.4.1).

### 6.3.4 LIGHT BULB / GLASS

- 1) Remove LH side rack from oven.
- 2) Undo the four screws holding light face surround on and remove the glass and surround. Check the seal and replace if necessary.

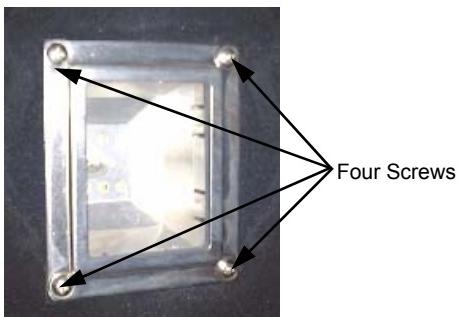


Figure 6.3.7

- 3) Pull bulb straight out of fitting, towards back of oven (taking care not to break glass). Replace bulb.

**NOTE:** The bulb is a halogen lamp, so do not touch the glass of the bulb while pushing straight into light fitting (use an oil free cloth or paper towel).

- 4) Replace seal, glass and surround, securing with the screws (do not over tighten).

### 6.3.5 LIGHT FITTING

- 1) Remove glass and surround (refer 6.3.4).
- 2) Remove LH side panel (refer 6.2.).
- 2) Disconnect wires at connector block (inside LH side panel).

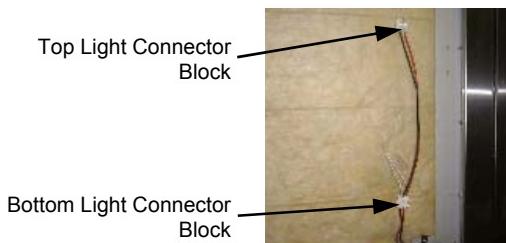


Figure 6.3.8

- 3) Open fibreglass to expose lamp fitting.
- 4) Push in tabs at back of light fitting from outside oven, pivot into oven and remove.
- 5) Re-assemble in reverse order.

### 6.3.6 LIGHTING TRANSFORMER

- 1) With R/H service panel removed (refer 6.2.2) transfer wires to new transformer with the aid of a screw-driver.
- 2) Remove one screw and loosen the second screw securing the transformer.

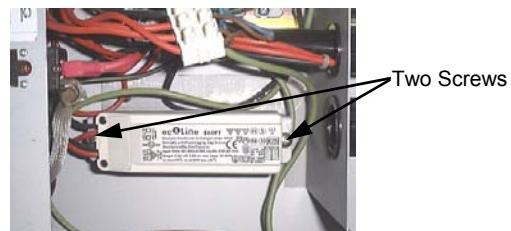


Figure 6.3.9

- 3) Remove the old transformer and secure the new transformer with the screws.

### 6.3.7 THERMOSTAT DIAL

- 1) Pull knob off front of thermostat.
- 2) Open control panel (refer 6.2.1) and undo two screws securing thermostat bracket.



Figure 6.3.10

- 3) Transfer wires to new thermostat.
- 4) Undo nut holding thermostat to bracket

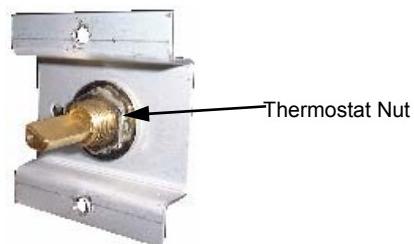


Figure 6.3.11

- 5) Withdraw old thermostat and insert new thermostat, securing with nut.
- 6) Re-assemble in reverse order.

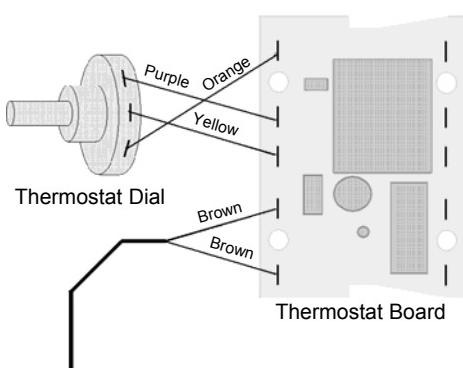


Figure 6.3.12

#### Thermostat Dial Resistances

**NOTE:** Dial must be disconnected from board for testing.

O is orange wire, P is purple wire, Y is yellow wire.

Dial Position	Resistance Between		
	O-P	P-Y	O-Y
Off	900 Ω	900 Ω	0 Ω
Halfway	900 Ω	450 Ω	450 Ω
Maximum	900 Ω	0 Ω	900 Ω

#### 6.3.8 THERMOSTAT BOARD

- 1) With control panel open (refer 6.2.1) transfer wires to new board.
- 2) Squeeze legs together on plastic clips holding board and extract.
- 3) Push new board onto clips.

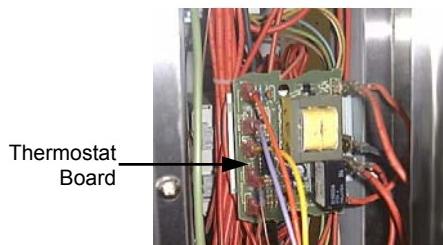


Figure 6.3.13

#### 6.3.9 THERMOSTAT PROBE

- 1) Remove R/H service panel (refer 6.2.1) and oven fan baffle (refer 6.2.3).
- 2) Remove bracket on steam line inside oven cavity by undoing the two screws.

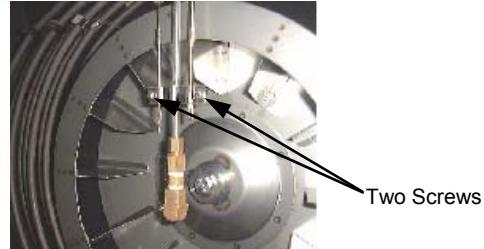


Figure 6.3.14

- 3) Undo the 2 bolts on the flange where the probe enters the oven (inside oven).

**NOTE:** Removal of probe and its mounting plate will require breaking of the silicone sealant.

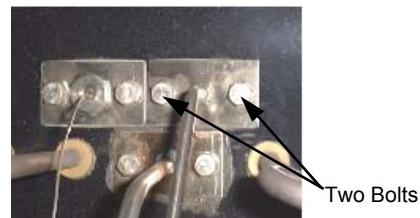


Figure 6.3.15

- 4) With control panel open (6.2.1) remove wires from thermostat board (2 brown wires at bottom left of board - refer figure 6.3.13).

- 5) Remove probe by drawing wires into oven.

- 6) Install the new probe in the reverse order.

**NOTE:** Ensure probe mounting plate has RTV silicone sealant applied to sealing face to ensure a leak proof assembly. Remove excess sealant after tightening securing screws.

#### Thermostat Probe Resistances

**NOTE:** Probe must be disconnected from board for testing.

Temperature	Resistance (kΩ)
0°C (32°F)	288
37°C (99°F)	56
100°C (212°F)	6.1

### 6.3.10 CONTACTORS / TIMERS ETC

- 1) With R/H service panel removed (refer 6.2.2), remove the din rail mounted component.
- 2) Install the new component onto the din rail.
- 3) Transfer the wires from old component to new one.
- 4) On contactors C2-C3, and C5-C6, ensure that mechanical interlock (part number 020769) is fitted as illustrated below.

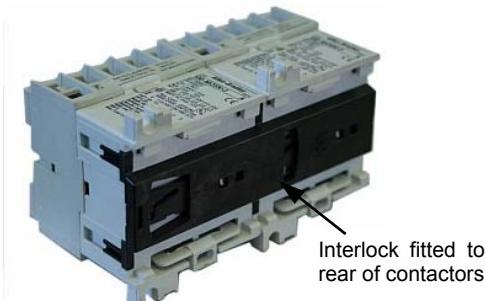


Figure 6.3.16

### 6.3.11 ELEMENTS

- 1) With service panel and baffle removed (refer 6.2.2 & 6.2.3) remove the wires from the element.
- 2) With the use of an  $11/16$ " tube spanner, undo the nuts on the outside at the element ends.
- 3) Pull element into oven and remove.

**NOTE:** When replacing or refitting elements ensure that the fibre sealing washers are used.

#### Element Resistances

**NOTE:** Element must be disconnected for testing. Resistances are given at room temperature.

208-220V	24.2 $\Omega$
230-240V	28.8 $\Omega$

### 6.3.12 OVER-TEMP THERMOSTAT

- 1) Remove service panel (refer 6.2.2) and baffle (refer 6.2.3).
- 2) Remove bracket on steam line inside oven cavity by undoing the 2 screws (figure .3.15).
- 3) Undo the 2 bolts on the flange where the probe enters the oven (inside oven).

**NOTE:** Removal of the probe and mounting plate will require breaking of the silicone sealant.

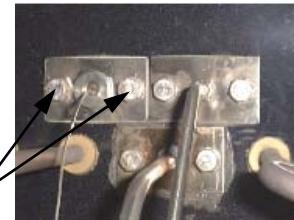


Figure 6.3.17

- 4) Undo gland nut on bracket and extract the probe from the bracket.

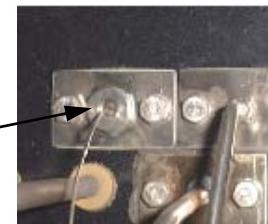


Figure 6.3.18

- 5) Undo the 2 screws holding the over-temp and remove over-temp.



Figure 6.3.19

- 6) Transfer wires from old over-temp thermostat to the new one.
- 7) Install the new over-temp and probe in the reverse order of above.

**NOTE:** Ensure probe mounting plate has RTV silicone sealant applied to sealing face to ensure a leak proof assembly. Remove excess sealant after tightening securing screws.

### 6.3.13 STEAM SWITCH

- 1) Open control panel (refer 6.2.1).
- 2) Prise out or rotate the switch locking tab with a small screwdriver, and withdraw the steam switch assembly.

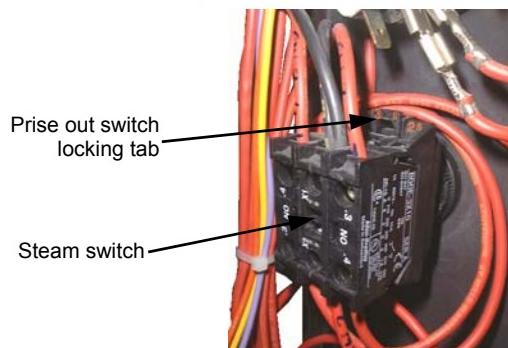


Figure 6.3.20

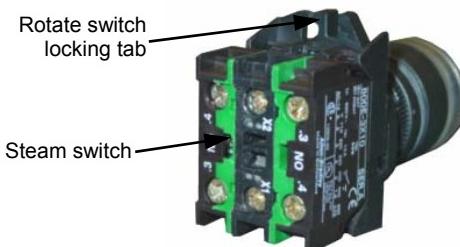


Figure 6.3.21

- 3) Transfer wires to new steam switch, and re-assemble in reverse order.

### 6.3.14 SPRAY NOZZLE

- 1) Remove the fan baffle (refer 6.2.3).
- 2) Unscrew the spray nozzle with  $\frac{9}{16}$ " and  $\frac{5}{8}$ " spanners.
- 3) Clean or replace as required, ensuring debris free on re-assembly.

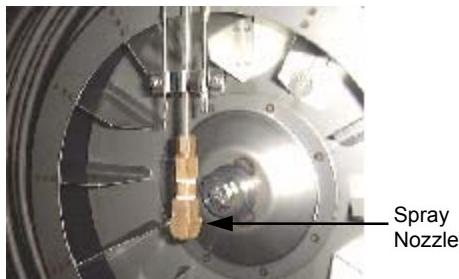


Figure 6.3.22

### 6.3.15 CHECK VALVE - UP TO S/N 261984

**NOTE:** If the check valve becomes blocked or corroded, the recommended course of action is to remove the internal parts of the valve, as it is not required for operation of the oven. The procedure for this is given below.

- 1) Remove the spray nozzle (refer 6.3.14).
- 2) Remove the check valve with  $\frac{1}{2}$ " and  $\frac{5}{8}$ " spanners.

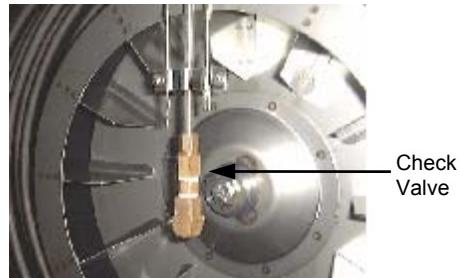


Figure 6.3.23

- 3) Dismantle the valve as illustrated, and discard the ball and spring from the valve.
- 4) Reassemble the valve (without the ball and spring) and refit to the unit.

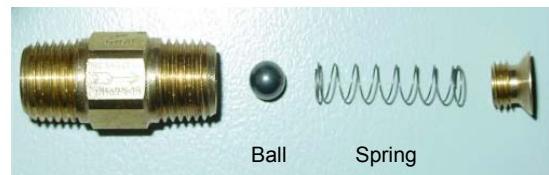


Figure 6.3.24

### 6.3.16 WATER SOLENOID

- 1) Ensure water supply is turned off.
- 2) With the R/H service panel removed (refer 6.2.2) remove the wires from the solenoid.
- 3) Undo the compression fitting on the output side of the solenoid ( $\frac{1}{2}$ " spanner).
- 4) Remove the hose fitting, inlet side, and adapter ( $\frac{13}{16}$ "), outlet side.
- 5) Remove two screws (up under bracket) and extract.

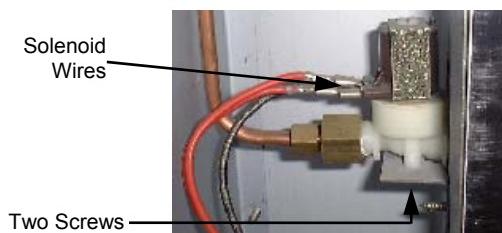


Figure 6.3.25

- 6) Secure new solenoid with screws, and re-assemble.

### 6.3.17 COOLING FAN

- 1) Remove R/H service panel (refer 6.2.2).
- 2) Remove the fan wires from the contactors.

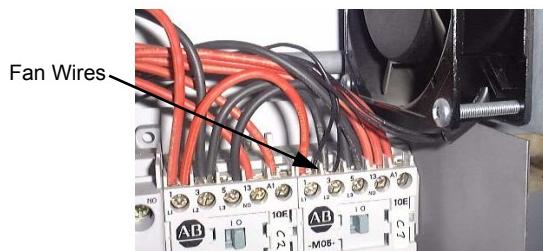


Figure 6.3.26

- 2) Remove the 4 screws securing the fan to its mounting bracket and remove fan.

**NOTE:** There is a nut on each screw, hold the nut while undoing the screw.

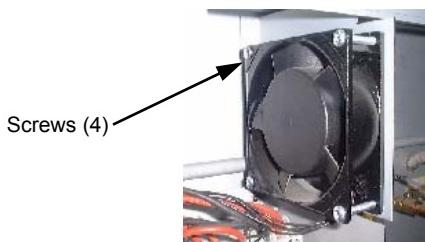


Figure 6.3.27

- 3) Replace and re-assemble in reverse order.
- 4) Ensure fan and flow direction is correct - sucks air out of controls and into motor cavity.



Figure 6.3.28

### 6.3.18 BAKE TIMER

- 1) Remove bake timer knob by pulling it firmly away from control panel.
- 2) Open control panel (refer 6.2.1) and undo two screws securing timer.



Figure 6.3.29

- 3) Transfer wires to new timer.
- 4) Withdraw old timer and insert new timer, securing with screws.
- 5) Replace knob.
- 6) Check timer switches off at '0' mark. If slight adjustment required, loosen the mounting screws and rotate timer in direction required.

### 6.3.19 BUZZER

- 1) Remove R/H service panel (refer 6.2.2).
- 2) Remove two screws holding buzzer bracket to panel.

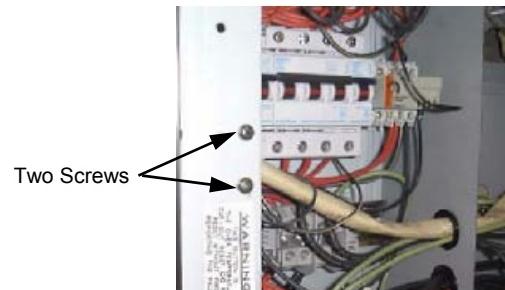


Figure 6.3.30

- 3) Withdraw and transfer wires to new buzzer.
- 4) Remove old buzzer from bracket, and secure new buzzer.
- 5) Reassemble in reverse order.

### 6.3.20 FAN

- 1) With service panel and oven fan baffle removed (refer 6.2.2 & 6.2.3) undo the 6 bolts holding the probes and steam line.

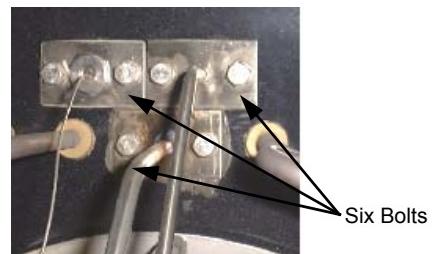


Figure 6.3.31

- 2) Undo the steam line compression fitting on the outside of the oven nearest the oven.

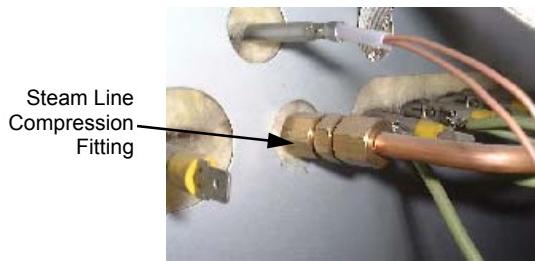


Figure 6.3.32

- 3) Pull assembly (steam nozzle etc) into the oven (without damaging probe lines) and support clear of the fan.

**NOTE:** Removal of the probe and mounting plate will require breaking of the silicone sealant.

- 4) Undo the bolt in the centre of the fan (use fan blades and heat deflector to steady).
- 5) Use a gear puller if necessary to remove the fan from the tapered shaft.
- 6) Replace and re-assemble in reverse order.

**NOTE:** Ensure probe mounting plate has RTV silicone sealant applied to sealing face to ensure a leak proof assembly. Remove excess sealant after tightening securing screws.

### 6.3.21 MOTOR

- 1) Remove fan (refer 6.3.19).
- 2) Undo the 4 bolts holding the motor in place (from the outside) and remove motor.

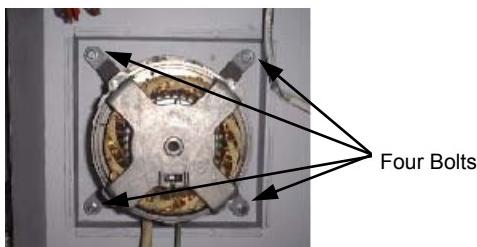


Figure 6.3.33

- 3) Disconnect motor leads.

**IMPORTANT:** Note wire colour and terminal connections.

- 4) Replace and reassemble in reverse order. Ensure wire leads are re-connected to correct contactor terminals.

### 6.3.22 FAN SPEED SWITCH

- 1) Pull knob off front of switch.
- 2) Open control panel (refer 6.2.1) and undo 2 screws securing switch.

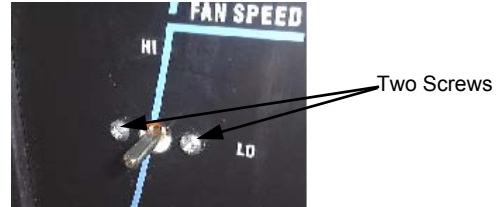


Figure 6.3.34

- 3) Transfer wires to new switch. Pull 2nd switch off and transfer to new switch.
- 4) Withdraw old switch and insert new switch, securing with screws.

### 6.3.23 VENT SWITCH

- 1) With control panel open (refer 6.2.1) remove the four screws securing bracket and two screws securing switch.

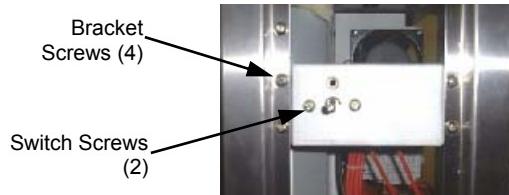


Figure 6.3.35

- 2) Remove bracket (twist to clear frame and pull forward), and switch (pull forward).
- 3) Transfer wires to the new switch and re-assemble in reverse order.

### 6.3.24 VENT / 'OVER-PRESSURE' VENT

- 1) Remove vent switch (refer 6.3.23) and Baffle (refer 6.2.3).
- 2) Rotate vent shaft 180° such that the spring is facing into the oven.
- 3) With 3mm Allen key remove Allen screw holding spring and vent assembly (inside top back RHS of oven).

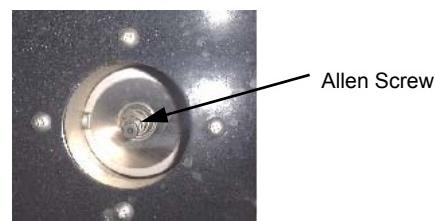


Figure 6.3.36

- 4) Internal vent pressure relief and vent shaft can now be removed and replaced.

### 6.3.25 DOOR OUTER GLASS

- 1) Ensure the door is locked shut
- 2) With a screwdriver, coin, or other suitable device,  $1/4$  turn the outer glass locks to release the outer glass and allow it to be hinged open.

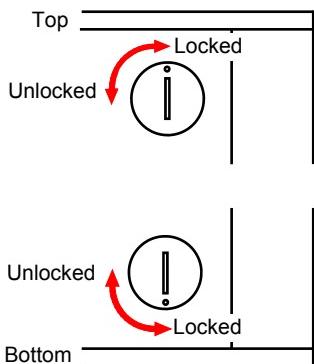


Figure 6.3.37

- 3) Undo the two hinges (two screws per hinge) and remove glass assembly.

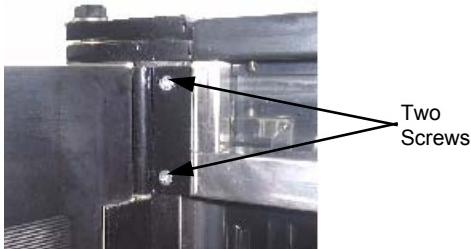


Figure 6.3.38

- 4) Replace and re-assemble in reverse order.

### 6.3.26 DOOR INNER GLASS

- 1) Open the oven door.
- 2) Remove the top door trim (two screws, one each end of trim). Take care not to drop the glass.

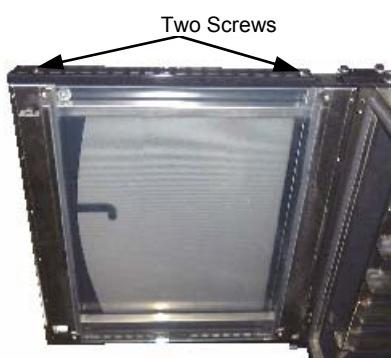


Figure 6.3.39

- 3) Lift and remove glass assembly. Replace and re-assemble in reverse order.

### 6.3.27 DOOR CATCHES

- 1) Open the oven door.
- 2) Undo two screws and pull catch straight out.

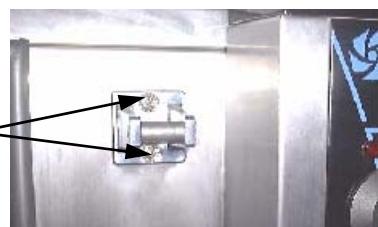


Figure 6.3.40

### 6.3.28 DOOR HANDLE

- 1) Open the oven door.
- 2) Remove the two screw caps covering the screws on the door handle.
- 3) Undo two screws securing handle, and pull straight out.



Figure 6.3.41

### 6.3.29 DOOR CATCH MECHANISM

- 1) Remove outer glass (refer 6.3.24) and door handle (refer 6.3.27) leaving door open.
- 2) Drill out the six rivets (refer figure 6.3.36, E) on the inside of the RH door trim (A) using a 3.5mm drill.
- 3) Remove four screws (F) on outside of RH door trim (A).
- 4) Remove trim (rotate toward inside of door).
- 5) Remove four screws (J) from RH inner door trim (B), and remove trim. (Loosen bottom trim screw (K) if required).
- 6) Remove two split-pins (G) from the connecting rod (H) on latch (C).
- 7) With handle in open position, push latch mechanism (C1) away from connecting rod (H) and remove the connecting rod.
- 8) Remove two screws (I) securing latching mechanism (C), and remove.
- 9) Replace and reassemble in reverse order.

### 6.3.30 DOOR HANDLE MECHANISM

- 1) Remove outer glass (refer 6.3.24), inner glass (refer 6.3.25) and door handle (refer 6.3.27), leaving door open.
- 2) Drill out the six rivets (refer figure 6.3.36, E) on the inside of the RH outer door trim (A) using a 3.5mm drill.
- 3) Remove four screws (F) on outside of RH outer door trim (A).
- 4) Remove trim (rotate toward inside of door).
- 5) Remove four screws (J) from RH inner door trim (B), and remove trim. (Loosen bottom trim screw (K) if required).
- 6) Remove four split-pins (G) from the connecting rods (H) on handle mechanism (D).
- 7) With handle in open position, push latch mechanism (C1) away from connecting rod (H) and remove the connecting rods.
- 8) Remove two screws (L) securing handle mechanism (D), and remove.
- 9) Re-assemble in reverse order.

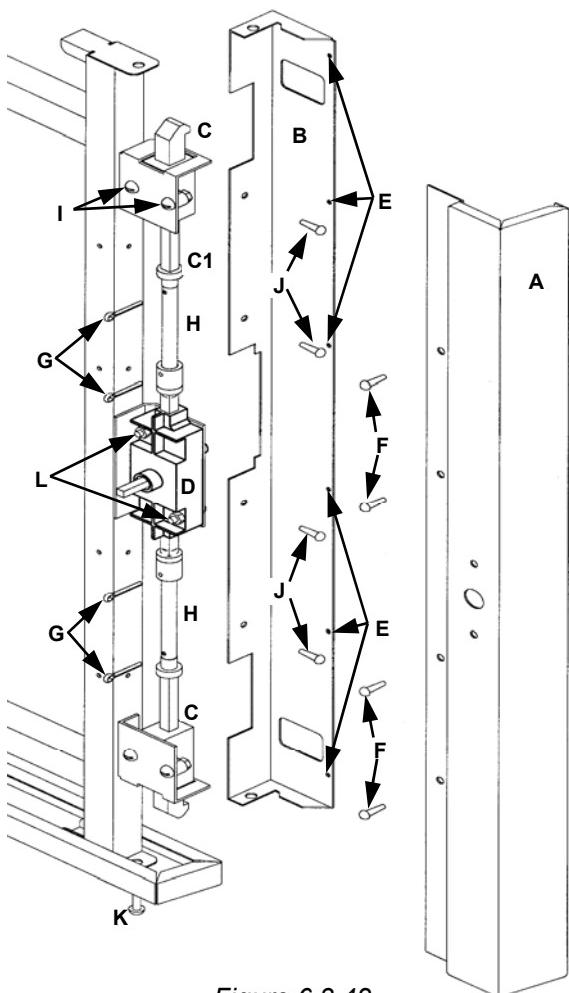


Figure 6.3.42

### 6.4 ADJUSTMENT / CALIBRATION

#### 6.4.1 DOOR MICROSWITCH ADJUSTMENT

- 1) Open oven door.
- 2) Loosen nut on front of microswitch, located at bottom right of door frame.

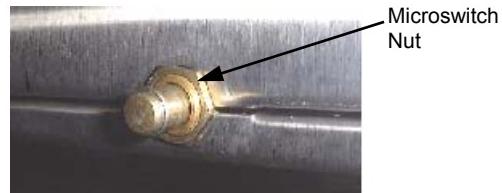


Figure 6.4.1

- 3) Loosen two bolts securing microswitch bracket from underside of oven.

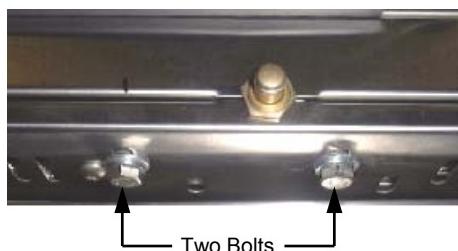


Figure 6.4.2

- 4) Adjust microswitch position and tighten bolts.

**NOTE:** Switch should operate when door handle is approximately  $\frac{1}{2}$  engaged ( $45^\circ$ ).

- 5) Repeat steps 2-5 as required, then tighten the front nut.

#### 6.4.2 60 MINUTE TIMER ZERO POSITION

- 1) Remove 60 minute timer knob by pulling it firmly away from control panel.
- 2) Open control panel (refer 6.2.1). Loosen two screws on control panel holding 60 minute timer.



Figure 6.4.3

- 3) The timer can now be rotated as required to ensure that the buzzer sounds at the zero position.

#### **6.4.3 DOOR SETTING ADJUSTMENT**

- 1) Open oven door.
- 2) Loosen the two bolts securing the top door hinge plate to the oven.



Figure 6.4.4

- 3) Adjust oven door position and tighten two bolts.
- 4) Check door operation. Repeat steps 2 and 3 as necessary to ensure that door closes and latches evenly.

#### **6.4.4 REVERSING THE DOOR**

- 1) Open the oven door.
- 2) Undo the top and bottom door hinge pivot pins (whilst supporting the door). Remove the oven door.



Figure 6.4.5

- 3) Undo the bolts securing the top hinge plate and bottom hinge plate to the left hand side of the oven door opening and remove.

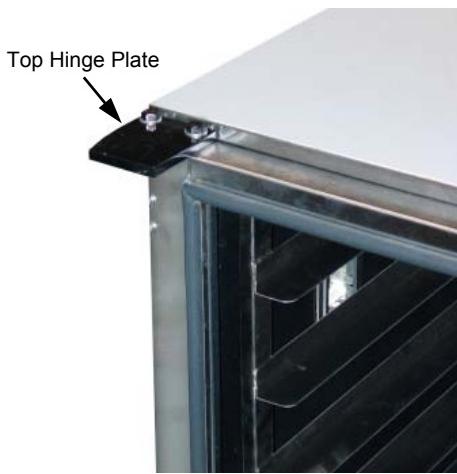


Figure 6.4.6

- 4) Remove the bolt catches (secured by two screws each) from the right hand side of the door frame, and secure to the left hand side of the door frame.



Figure 6.4.7

- 5) Remove the microswitch nut, and undo the three screws securing the microswitch cover panel to the bottom of the oven.

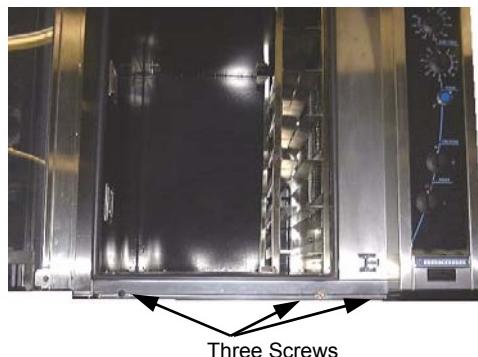


Figure 6.4.8

- 
- 6) Undo the screws securing the microswitch mounting bracket to the cover panel, turn the bracket around, and re-secure the switch (facing the other way).



Figure 6.4.9

- 7) Refit the cover panel to the bottom of the oven with the microswitch at the left hand side of the oven.
- 8) Fit the top and bottom hinge plates (removed in step 2) to the right hand side of the oven door opening. (The plates should be turned upside-down from their position on the left hand side of the oven).
- 9) Turn the door over and refit the pivot pins to the hinge plates to secure the door to the right hand side of the door opening.
- 10) Check the operation of the door microswitch and adjust as necessary.

**NOTE:** The door handle mechanism will now operate in the 'up' direction rather than down.

## **6.4.5 FAN & STEAM TIMER OPERATION / ADJUSTMENT**

All the timers have a dial on the front that adjusts the time the timer switches for when control energised. All the timers have an LED on the front that flashes when the timer is switched.

### **T1 Fan Cycle Timer**

This timer switches power between the clockwise and anti-clockwise fan direction circuits, the time set is the duration on each fan direction.

Factory set to 1 1/2 minute.

Refer to Appendix C for timer settings.

### **T2 & T4 Steam Timers (2)**

These should be set the same and determine the duration of the steam, one for clockwise fan circuit and one for anti-clockwise fan circuit. If the steam cycle is too long water will condense on the product and oven chamber, and oven may cool too much - it is usually better to have multiple cycles than a long cycle.

Factory set to 10 seconds.

Refer to Appendix C for timer settings.

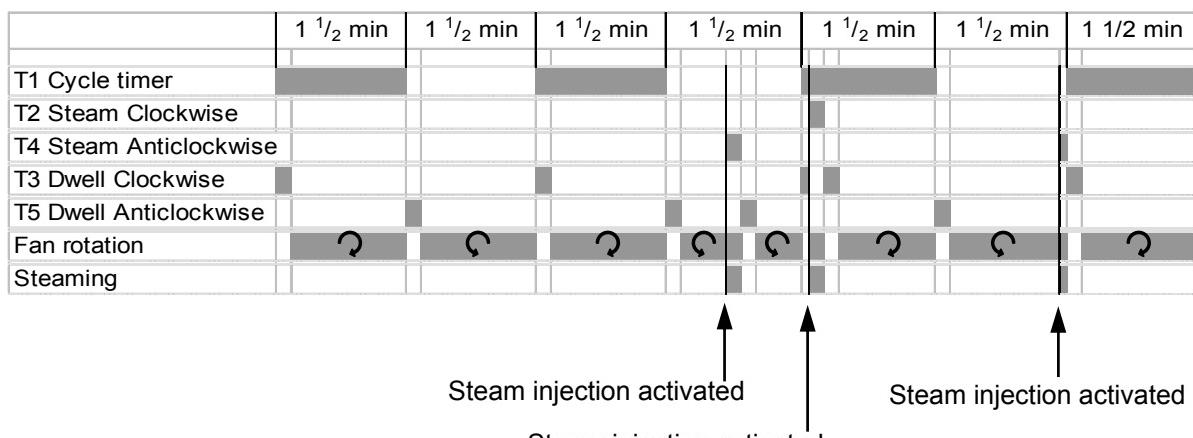
### **T3 & T5 Dwell Timers (2)**

Once again these should be set the same, this is the delay time between fan directions and after steaming, when no power is applied to the fan motor. One is for the clockwise fan circuit and one is for the anti-clockwise fan circuit.

Factory set to 10 seconds.

Refer to Appendix C for timer settings.

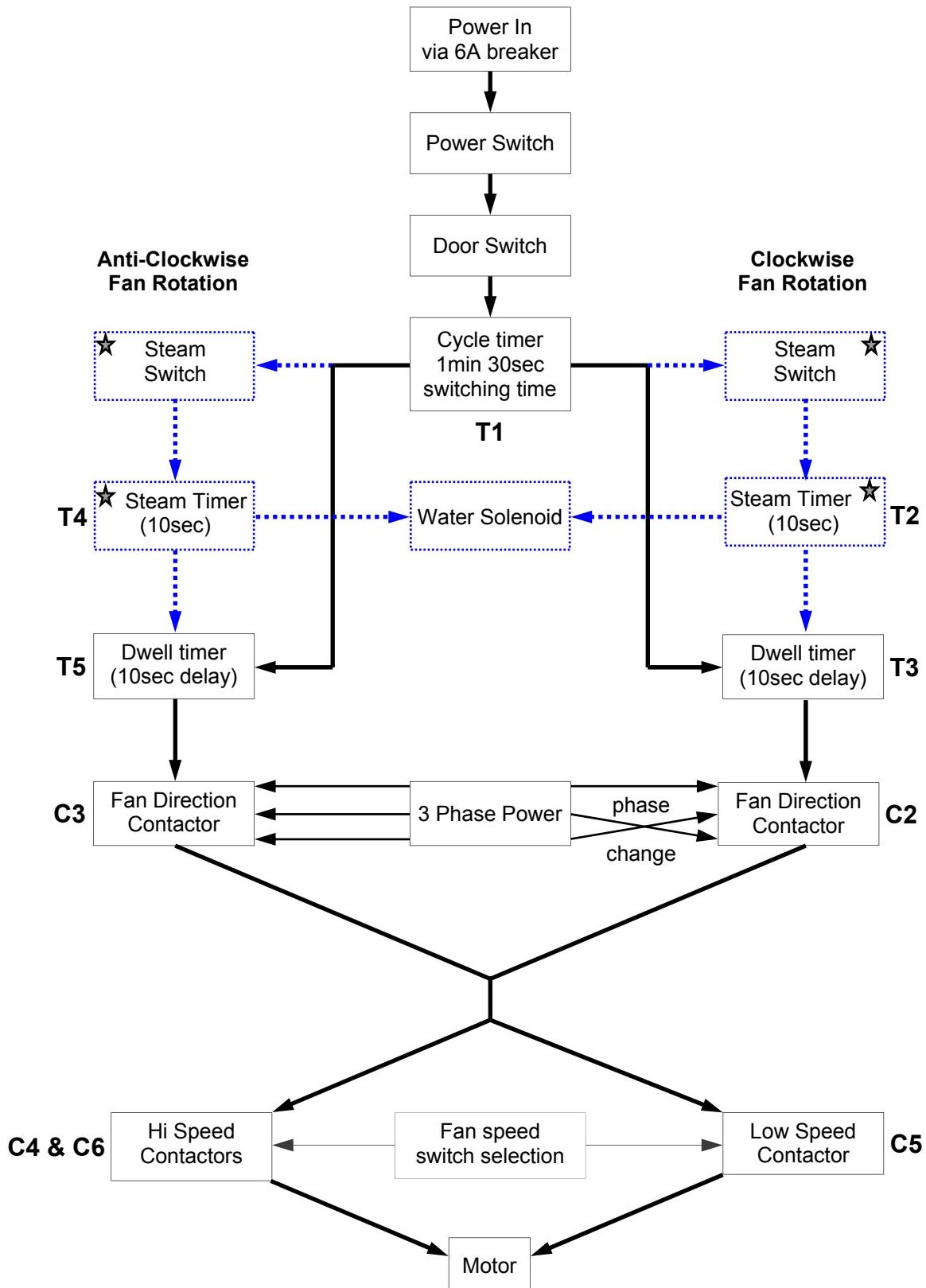
Figure 6.4.5 shows the function of the timers on a time line. The grey areas are when a timer is switched (LED flashing) or where fan is rotating / steam injecting. The dark lines show when the steam button has been pressed, the first is most common while the next two show the effect of steaming at the beginning or end of a direction cycle. Priority (power flow) is top to bottom on the chart (cycle timer effects all others)



*Figure 6.4.5*

## Fan / Steam Flow Chart

This is a guide only, for accurate representation of all connections refer to the wiring chart.

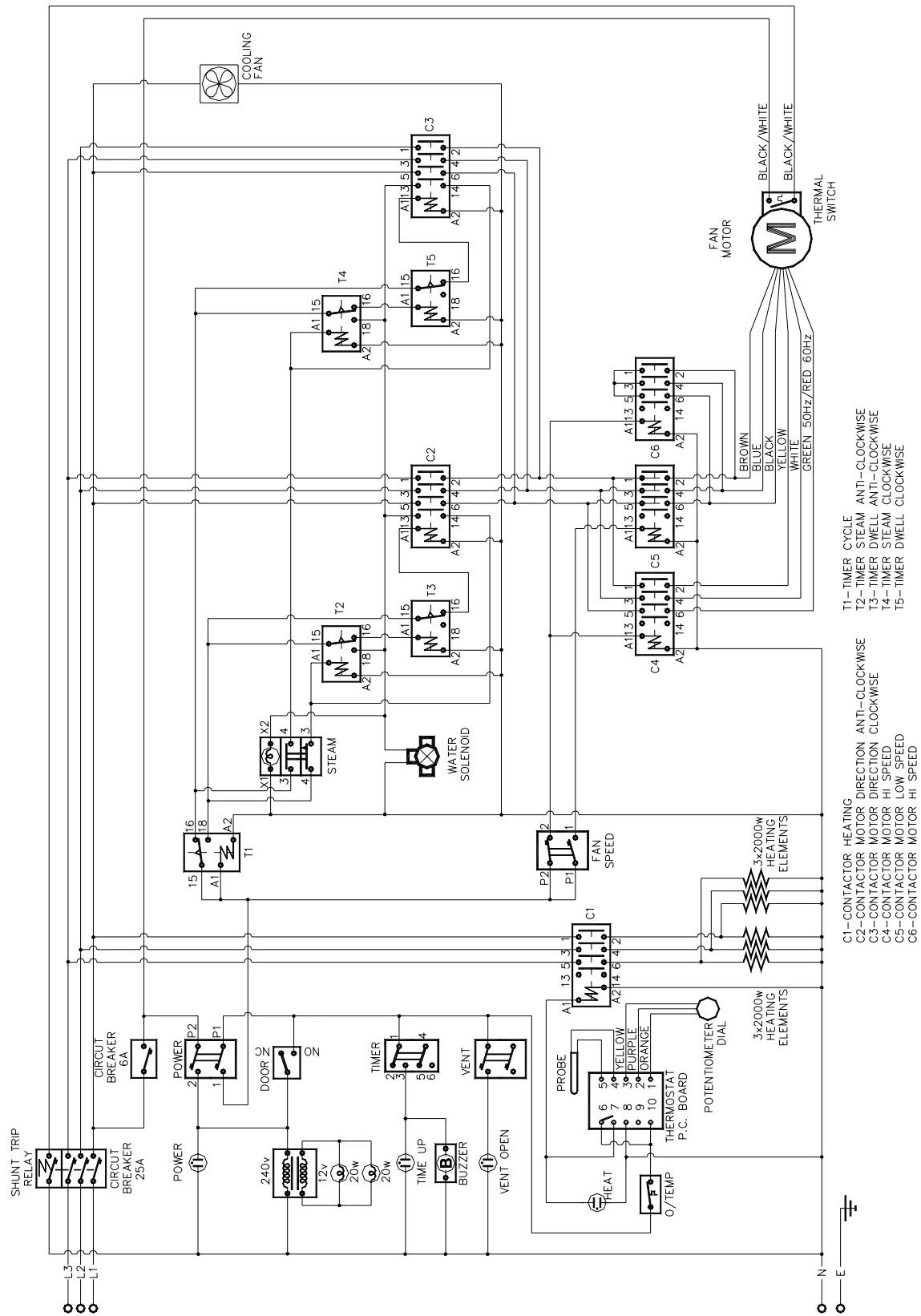


★ Steam switch on control panel - manual activation.

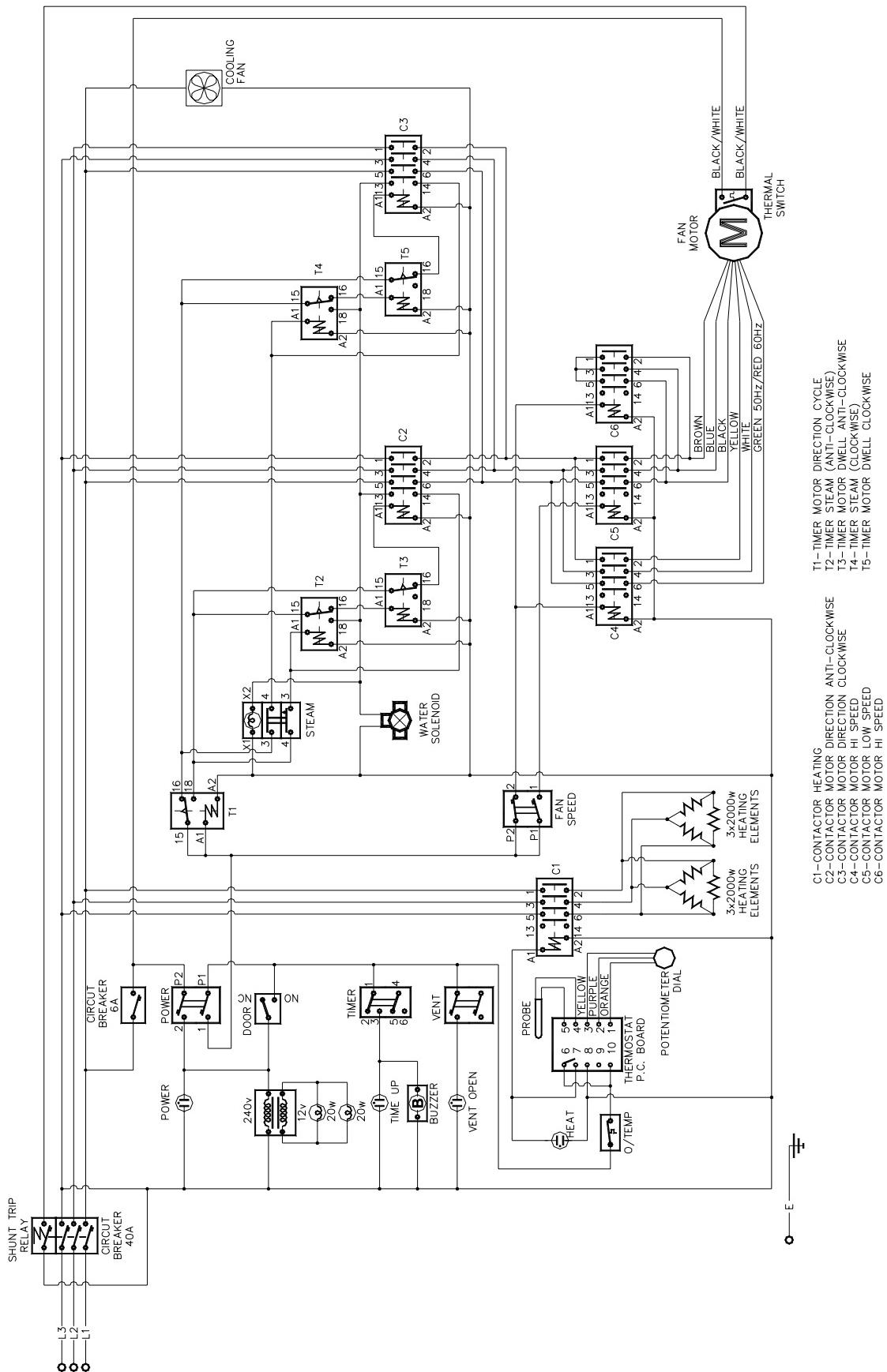
★ Timers T4 and T2 only operate when steaming (otherwise is direct connection).

## 7. ELECTRICAL CIRCUIT SCHEMATIC

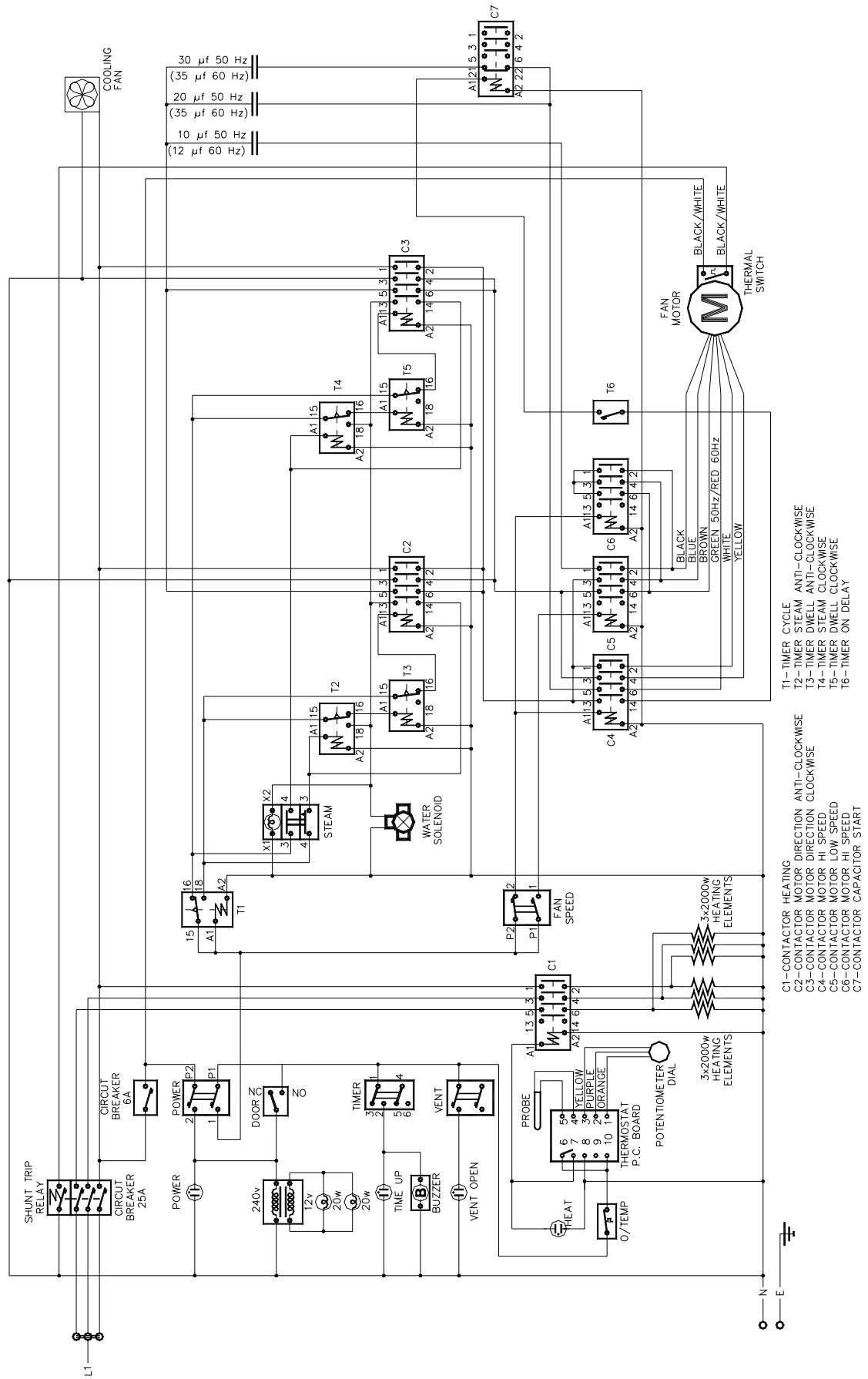
## 7.1 380-415V, 3P+N+E



## 7.2 208-240V, 3P+E

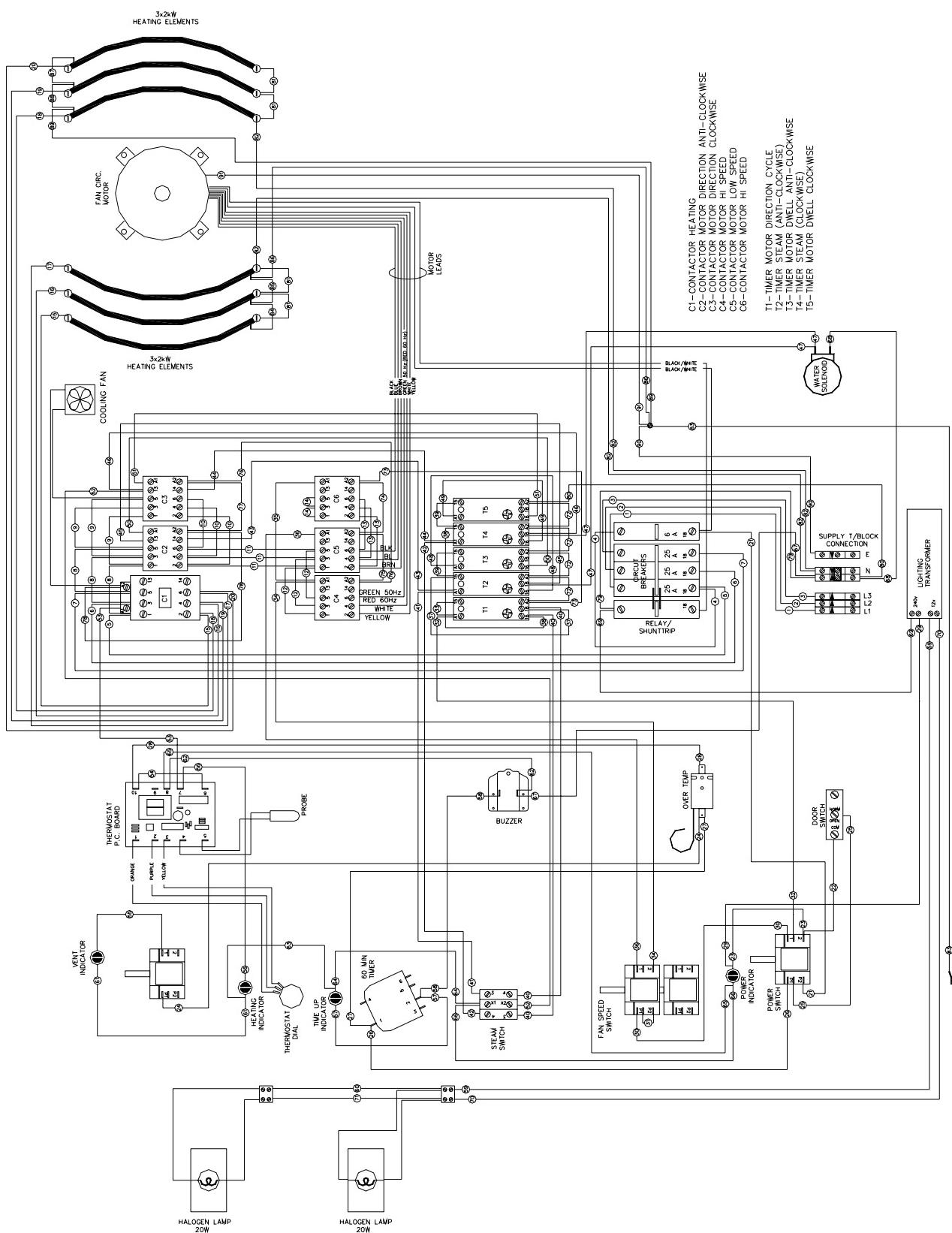


### 7.3 208-240V, 1P+N+E

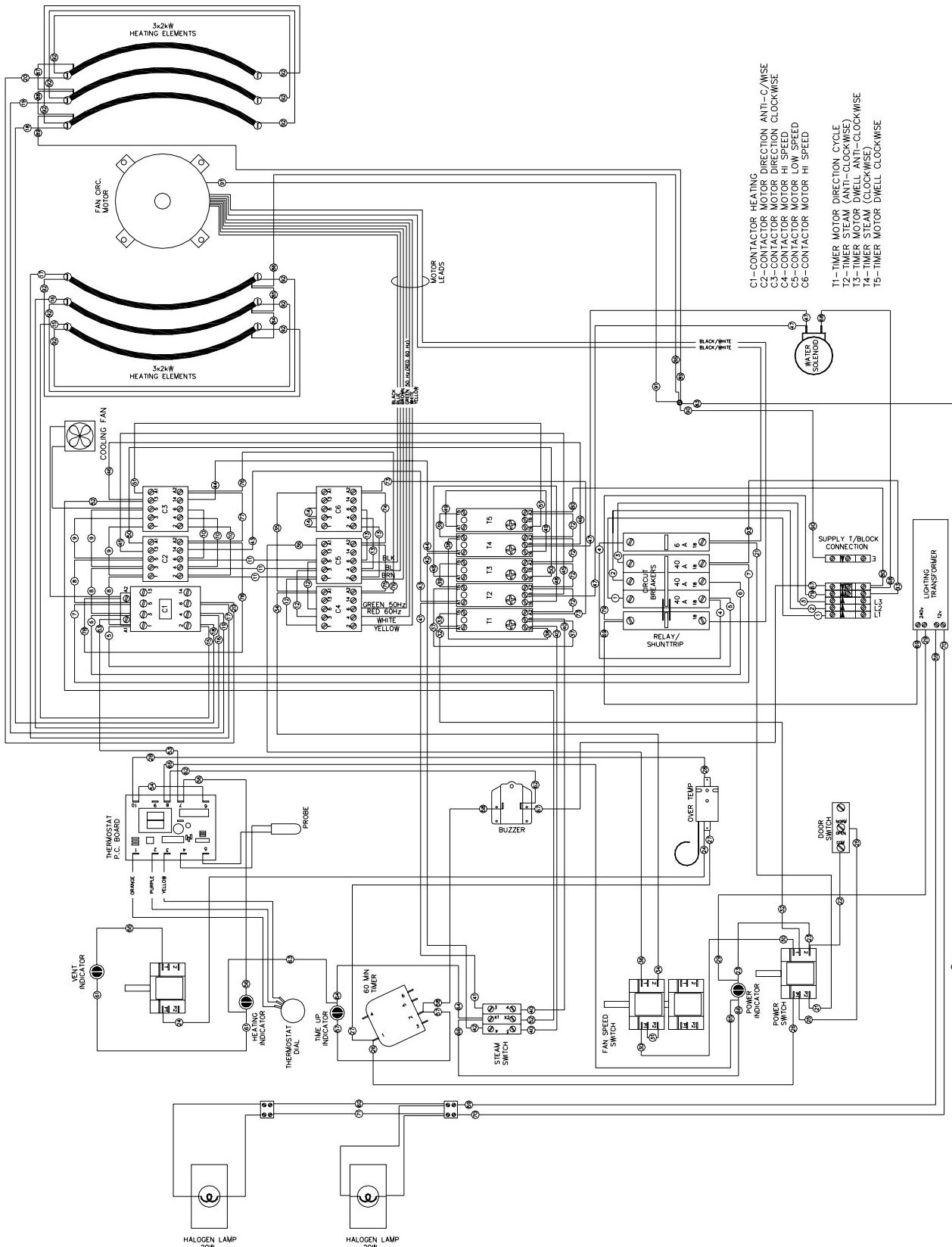


## **8. ELECTRICAL WIRING DIAGRAM**

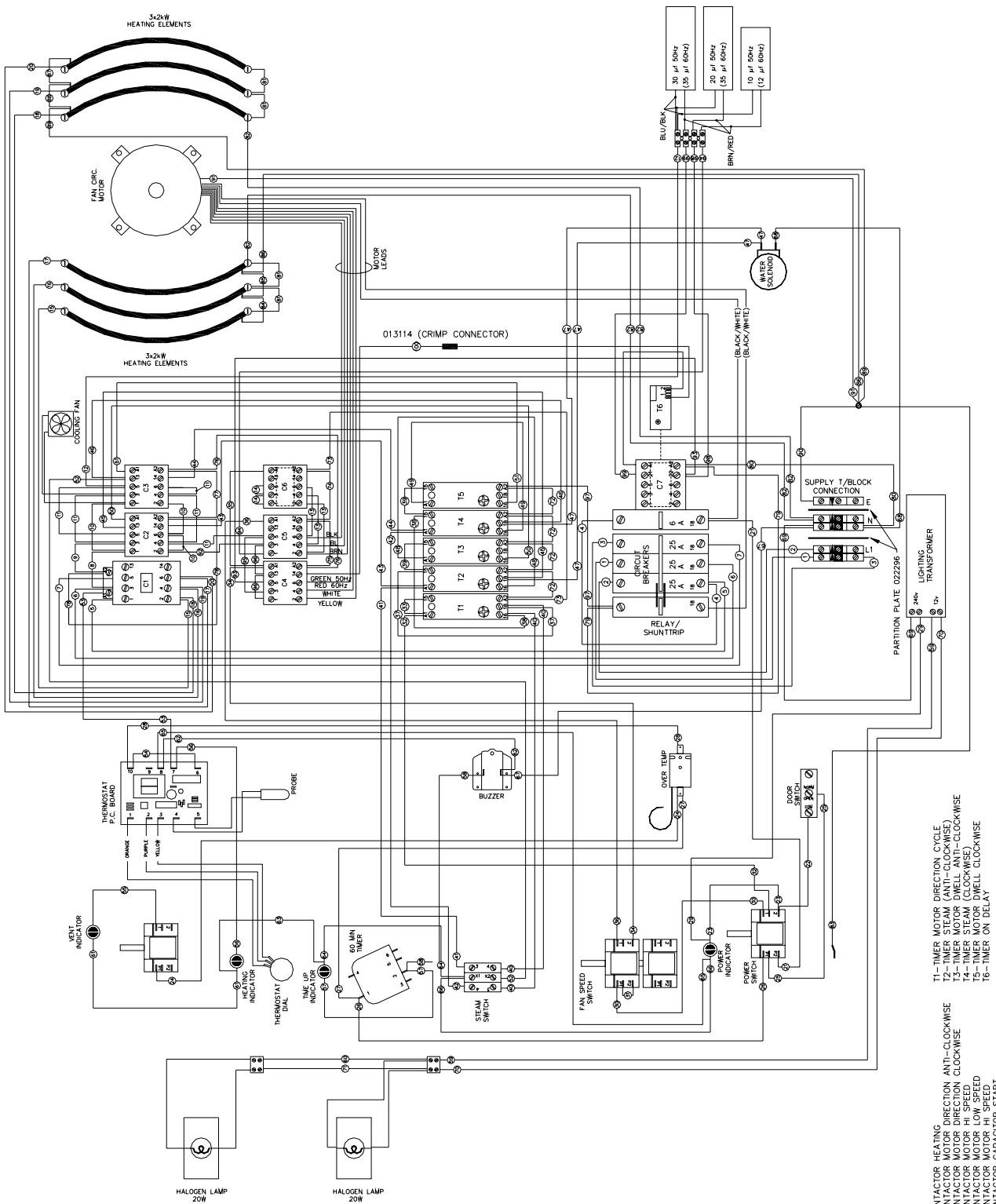
### **8.1 380-415V, 3P+N+E**



## 8.2 208-240V, 3P+E



### 8.3 208-240V, 1P+N+E



## 9. SPARE PARTS

### PART NO      DESCRIPTION

#### CONTROL PANEL

020822	Power Switch
020849	Neon Indicator Lights
020985	Thermostat Potentiometer
011760	Timer - 60 Min
020893	Steam Switch Assembly
020882	Solid State Thermostat
020888	Fan Speed Switch (Rear half of fan switch assembly)
020822	Fan Speed Switch (Front half of fan switch assembly)
020883K	Thermostat Probe Kit
020823	Control Panel Knobs

#### GEAR PLATE

015966	Heating Contactor 230-240V - 50Hz
020974	Heating Contactor 208-220V, 50Hz - E35-X253 only
020772	Heating Contactor 208-240V, 60Hz
020768	Motor Contactor
020769	Contactor Interlock (Used on C2 & C3, C5 & C6)
023059	Timer- Fan Direction (Cycle)
023058	Timer - Fan Direction (Dwell) / Steam Dose
020770	Shunt Trip (Vynkier) (50Hz to S/N 230810)
021345	Shunt Trip (AB) (50Hz from S/N 230811; 60Hz All)
020975	Circuit Breaker - 3ø 40A (AB) (3ø+E models)
020776	Circuit Breaker - 3ø 25A (Vynkier) (3ø+N+E models to S/N 230810)
021563	Circuit Breaker - 3 pole 25A (AB) (3ø+N+E models from S/N 230811; All 1ø+N+E models)
020777	Circuit Breaker - 1ø 6A (Vynkier) (50Hz to S/N 230810)
021344	Circuit Breaker - 1ø 6A (AB) (50Hz from S/N 230811; All 60Hz)
020213	Lighting Transformer
021351	Oven Lamp Complete
021350	Light Bulb G4/20W Halogen
021352	Oven Lamp Glass
021354	Gasket
019369K	Over Temperature Control Kit
021156	Cooling Fan
021551	Capacitor 10µF (1ø models only) - 50Hz
021553	Capacitor 20µF (1ø models only) - 50 Hz
021554	Capacitor 30µF (1ø models only) - 50Hz
021552	Capacitor 12µF (1ø models only) - 60Hz
021555	Capacitor 35µF (1ø models only) - 60Hz
021560	Relay 10A (1ø models only) - Motor start capacitor switching
021561	Relay Socket Base (1ø models only) - Motor start capacitor switching
021562	Timer on Relay 1-30sec (1ø models only) - Motor start capacitor timing
011794	Buzzer

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<b>PART NO</b>	<b>DESCRIPTION</b>
<b>MOTOR &amp; ELEMENTS</b>	
020745	Motor - 380-415V 50Hz 3Ø (E35-H453-xx, E35-N453-xx, E35-X353-xx only)
020885	Motor - 220-240V 50Hz 1Ø/3Ø (E35-H251-xx, E35-X25x-xx only)
020886	Motor - 208-240V 60Hz 1Ø/3Ø (E35-P26x-xx, E35-T26x-xx, E35-X263-xx only)
-----	Motor Front Bearing - SKF 6204-2Z/C3LHT23
-----	Motor Rear Bearing - NSK 6203Z
025396	Fan
020896	Motor Shaft Seal
020762	Element - 230-240V 2000W (E35-Hxxx-xx, E35-Nxxx-xx, E35-Txxx-xx only)
020763	Element - 208-220V 2000W (E35-Pxxx-xx, E35-Xxxx-xx only)
022259	Element - 208-220V 1250W (E358-Nxxx-xx only)
<b>STEAM SYSTEM</b>	
020851	Water Solenoid Valve
020853	Spray Adaptor Body
020854	Spray Nozzle Cap
020819	Vent Over Pressure Spring
020824	Vent Gasket
<b>DOOR</b>	
025043	Door Seal
020738	Hinge Bush
020754	Bolt Catch
020750	Hinge Mounting Plate Bottom
023050	Hinge Mounting Plate Top
020753	Bolting Element
020833	Door Bolt Connecting Rod
020752	Handle Gear
020751	Door Handle
020774	Microswitch
020766	Latch Assembly (Hinged glass door only)
020713K	Door Inner Glass (Hinged glass door only)
022308	Glass Clamp (Hinged glass door only)
021154	Door Outer Glass Assembly (Hinged glass door only)
024150	Door Glass Assembly - Complete (Stainless steel door only) <b>(NOTE:</b> Does not include inner and outer seals)
024094	Door Inner Glass (Stainless steel door only)
024095	Door Outer Glass (Stainless steel door only)
024104	Door Inner Glass Seal (Stainless steel door only)
024105	Door Outer Glass Seal (Stainless steel door only)
024087	Door Inner Glass Clamp Frame (Stainless steel door only)

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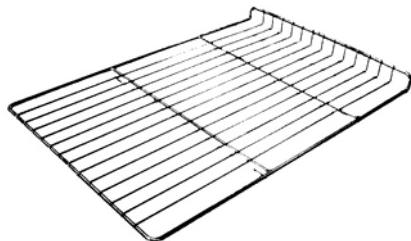
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## RACKS

020809	Side Rack 6 Tray LH (26" models)
020810	Side Rack 6 Tray RH (26" models)
020811	Side Rack 6 Tray LH (30" models)
020812	Side Rack 6 Tray RH (30" models)
025089	Side Rack 8 Tray LH (26" models)
025090	Side Rack 8 Tray RH (26" models)
023018	Side Rack 8 Tray LH (30" models)
023019	Side Rack 8 Tray RH (30" models)
025916	Side Rack 4 Tray LH (26" models)
025917	Side Rack 4 Tray RH (26" models)
015168	Oven Rack (26" models)
020993	Oven Rack (30" models)

## 10. ACCESSORIES

OVEN RACKS  
(PART NO 015168 - 26" / 020993 - 30")



DOUBLE STACKING KIT (PART NO 021236  
(26") / 021237(30"))



100 MM (FOUR INCH) LEG OPTION (PART  
NO 021348 x4)



150 MM (SIX INCH) LEG OPTION (PART NO  
018724 x4)



A26 STAINLESS STEEL STAND



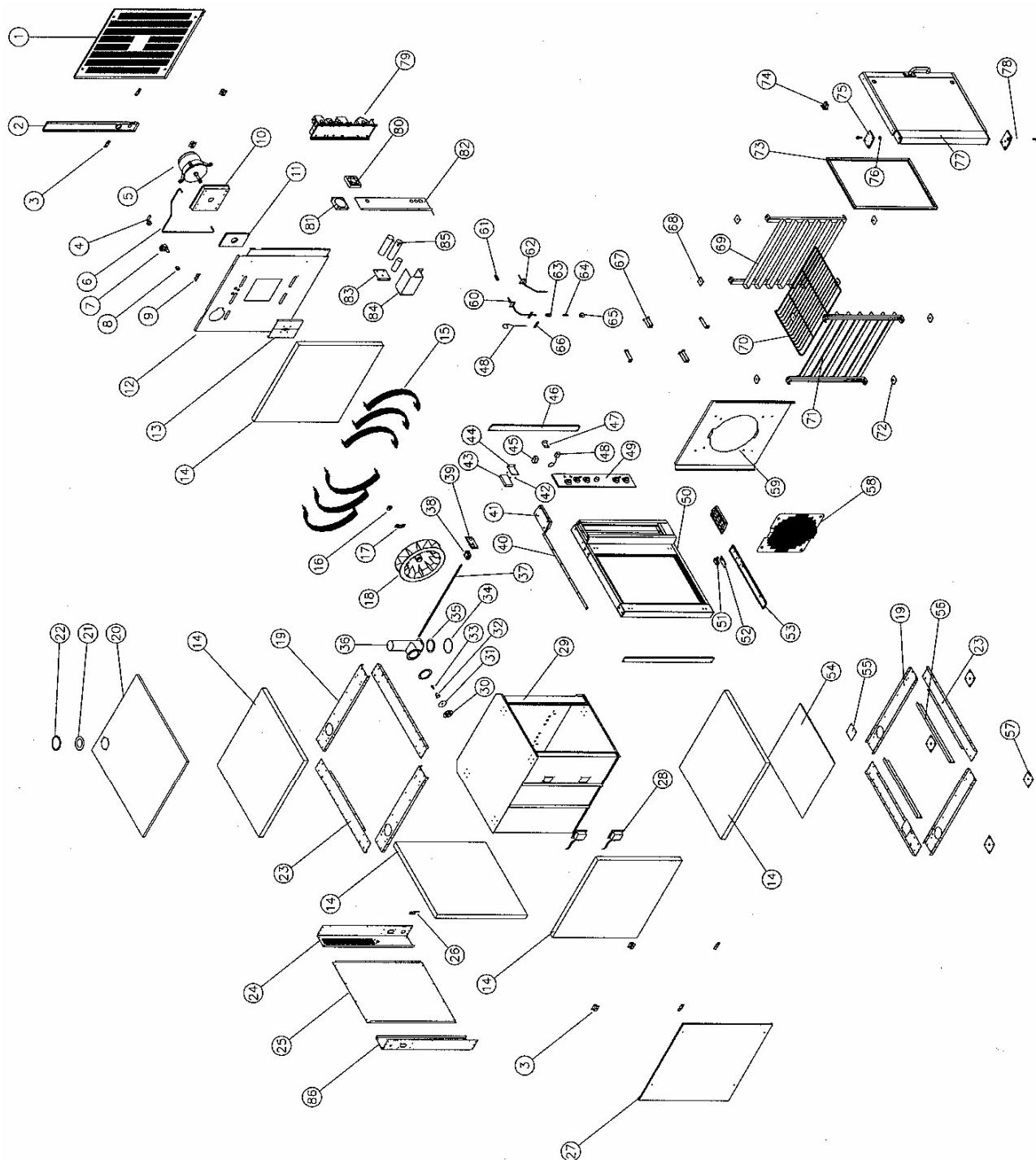
STAINLESS STEEL DOOR OPTION



Stainless Steel Door Conversion Kit - Part  
No 024150

## 11. PARTS DIAGRAMS

### 11.1.1 MAIN ASSEMBLY



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<b>Pos</b>	<b>Part No.</b>	<b>Description</b>
1	020788	SIDE PANEL RH ( <b>E35-xxx-26 only, to s/n 215839</b> ) <b>(Replace with 23971)</b>
	023971	SIDE PANEL RH ( <b>E35-xxx-26 only, from s/n 215840</b> )
	020790	SIDE PANEL RH ( <b>E35-xxx-30 only, to s/n 215839</b> ) <b>(Replace with 23972)</b>
	023972	SIDE PANEL RH ( <b>E35-xxx-30 only, from s/n 215840</b> )
2	020792	SERVICE ENTRY PANEL
	019213	CABLE ENTRY BUSH ( <b>Not illustrated - to s/n 205999</b> )
3	020785	PANEL MOUNTING BRACKET
4	021526	WATER INLET ELBOW ( <b>Refer 11.1.3</b> )
	021527	WATER INLET WASHER
5	020745	MOTOR ( <b>380-415V 50Hz 3ø</b> )
	020885	MOTOR ( <b>220-240V 50Hz 1ø/3ø</b> )
	020886	MOTOR ( <b>208-240V 60Hz 1ø/3ø</b> )
	025751	FAN MOTOR HEAT FLINGER
6	020860	WATER SUPPLY TUBE ( <b>E35-xxx-26 only</b> ) ( <b>Refer 11.1.3</b> )
	020862	WATER SUPPLY TUBE ( <b>E35-xxx-30 only</b> ) ( <b>Refer 11.1.3</b> )
7	020851	WATER SOLENOID ( <b>Refer 11.1.3</b> )
8	020869	CONNECTOR - 3/8"F x 1/4" COMPRESSION ( <b>Refer 11.1.3</b> )
9	020991	MOUNTING BRACKET ( <b>Refer 11.1.3</b> )
10	020897	MOTOR INSULATION PLATE
11	020778	MOTOR MOUNTING PLATE
12	020797	SIDE INSULATION PANEL ( <b>E35-xxx-26 only</b> )
	020798	SIDE INSULATION PANEL ( <b>E35-xxx-30 only</b> )
13	021160	OVEN SIDE PLATE
14	090416	FIBREGLASS INSULATION 730x780x38
	090417	FIBREGLASS INSULATION 730x880x38 ( <b>E35-xxx-30 only</b> )
15	020762	ELEMENT - 220-240V 2000W ( <b>H,N,T only</b> )
	020763	ELEMENT - 208-220V 2000W ( <b>P,X only</b> )
	022259	ELEMENT - 208-220V 1250W ( <b>8kW units only - option</b> )
	015292	SEALING WASHER
16	020896	MOTOR SHAFT SEAL
17	020898	MOTOR SEAL HOUSING
18	025396	FAN
19	020780	CHASSIS HORIZONTAL SIDE ( <b>E35-xxx-26 only</b> )
	020786	CHASSIS HORIZONTAL SIDE ( <b>E35-xxx-30 only</b> )
20	020795	TOP COVER ( <b>E35-xxx-26 only</b> )
	020796	TOP COVER ( <b>E35-xxx-30 only</b> )
21	022425	VENT SEAL
22	022426	VENT SEAL FLANGE PLATE
23	020781	CHASSIS HORIZONTAL
24	023970	CHASSIS VERTICAL REAR RH
25	020791	BACK PANEL
26	020895	CABLE GUIDE BRACKET
27	020787	SIDE PANEL LH ( <b>E35-xxx-26 only</b> )
	020789	SIDE PANEL LH ( <b>E35-xxx-30 only</b> )
28	021351	OVEN LAMP HOLDER & BULB
	021352	OVEN LAMP - GLASS LENS
	021354	OVEN LAMP - GASKET
	021350	OVEN LAMP - BULB G4/20W
	021353	OVEN LAMP - SUPPORT FRAME
29	004703	OVEN WA - ENAMELLED ( <b>E35-xxx-26 only</b> )
	004704	OVEN WA - ENAMELLED ( <b>E35-xxx-30 only</b> )
	020874	OVEN WA STAINLESS STEEL ( <b>E35-xxx-26 only</b> )
	020875	OVEN WA STAINLESS STEEL ( <b>E35-xxx-30 only</b> )
30	020828	VENT FLAP
31	020827	VENT OVER PRESSURE PLATE
32	020819	OVER PRESSURE SPRING

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33	041425	SCREW - M4 x 6 PAN POZI
34	016241	VENT HOOD
35	020824	VENT GASKET
36	020845	VENT WA
37	020821	VENT OPERATING ROD ( <b>E35-xxx-30 only</b> )
	020820	VENT OPERATING ROD ( <b>E35-xxx-26 only</b> )
38	020822	SELECTOR SWITCH ( <b>Refer 11.1.2</b> )
39	020834	VENT SWITCH BRACKET ( <b>Refer 11.1.2</b> )
40	020761	TOP BUTT STRAP
41	020764	CONTROL HOUSING CAP
	020865	SCREW CAP - BLACK
42	018768	STAND-OFF ( <b>Refer 11.1.2</b> )
43	020882	THERMOSTAT - SOLID STATE ( <b>Refer 11.1.2</b> )
44	020775	T/STAT BOARD MOUNTING BRACKET ( <b>Refer 11.1.2</b> )
45	011794	BUZZER ( <b>Refer 11.1.2</b> )
46	020783	CHASSIS VERTICAL FRONT ( <b>Refer 11.1.2</b> )
47	014032	BUZZER MOUNTING BRACKET ( <b>Refer 11.1.2</b> )
48	019369K	OVERTEMP THERMOSTAT KIT ( <b>Refer 11.1.2, 11.1.3</b> )
	013506	GLAND WASHER
	013507	GLAND BUSH
	013508	GLAND NUT
	020887	SPLIT GLAND NUT ASSY (c/w Split nut, Seal & Washer)
	020892	GLAND BUSH MOUNTING PLATE
49	-----	CONTROL PANEL ASSEMBLY ( <b>Refer 11.2</b> )
50	020841	FACIA WA
51	020774	MICROSWITCH
52	020829	MICROSWITCH MOUNTING BRACKET
53	020830	MICROSWITCH COVER PANEL
54	020793	BASE COVER SHEET ( <b>E35-xxx-26 only</b> )
	020794	BASE COVER SHEET ( <b>E35-xxx-30 only</b> )
55	020899	BLANKING PLATE
56	020784	OVEN SUPPORT BRACKET
57	018723	LEG PLATE
58	020881	FAN GUARD
59	020879	FAN BAFFLE ( <b>E35-xxx-26 only</b> )
	020880	FAN BAFFLE ( <b>E35-xxx-30 only</b> )
60	020857	STEAM TUBE WA ( <b>Refer 11.1.3</b> )
61	020861	COMPRESSION UNION 1/4" ( <b>Refer 11.1.3</b> )
62	020883K	PROBE KIT ( <b>Refer 11.1.3</b> )
	020856	GASKET
63	016794	MALE CONNECTOR ( <b>Refer 11.1.3</b> ) (From S/N 261985)
	020855	FEMALE CONNECTOR ( <b>Refer 11.1.3</b> ) (Up to S/N 261984)
64	020852	CHECK VALVE ( <b>Up to S/N 261984</b> )
65	020853	SPRAY BODY - WHIRLJET ( <b>Refer 11.1.3</b> )
	020856	GASKET
66	020890	PROBE SECURING BRACKET ( <b>Refer 11.1.3</b> )
67	020844	BAFFLE SPACER WA
68	020802	RACK LOCATION UPPER WA
69	020810	SIDE RACK RH WA ( <b>E35-xxx-26 only</b> )
	020812	SIDE RACK RH WA ( <b>E35-xxx-30 only</b> )
	023019	SIDE RACK 8 TRAY RH WA ( <b>E35 - xxx- 30 only</b> )
	025090	SIDE RACK 8 TRAY RH WA ( <b>E35 - xxx- 26 only</b> )
	025917	SIDE RACK 4 TRAY RH WA ( <b>E35 - xxx- 26 only</b> )
70	015168	OVEN RACK ( <b>E35-xxx-26 only</b> )
	020993	OVEN RACK ( <b>E35-xxx-30 only</b> )
71	020809	SIDE RACK LH WA ( <b>E35-xxx-26 only</b> )
	020811	SIDE RACK LH WA ( <b>E35-xxx-30 only</b> )
	023018	SIDE RACK 8 TRAY LH WA ( <b>E35 - xxx- 30 only</b> )
	025089	SIDE RACK 8 TRAY LH WA ( <b>E35 - xxx- 26 only</b> )
	025916	SIDE RACK 4 TRAY LH WA ( <b>E35 - xxx- 26 only</b> )

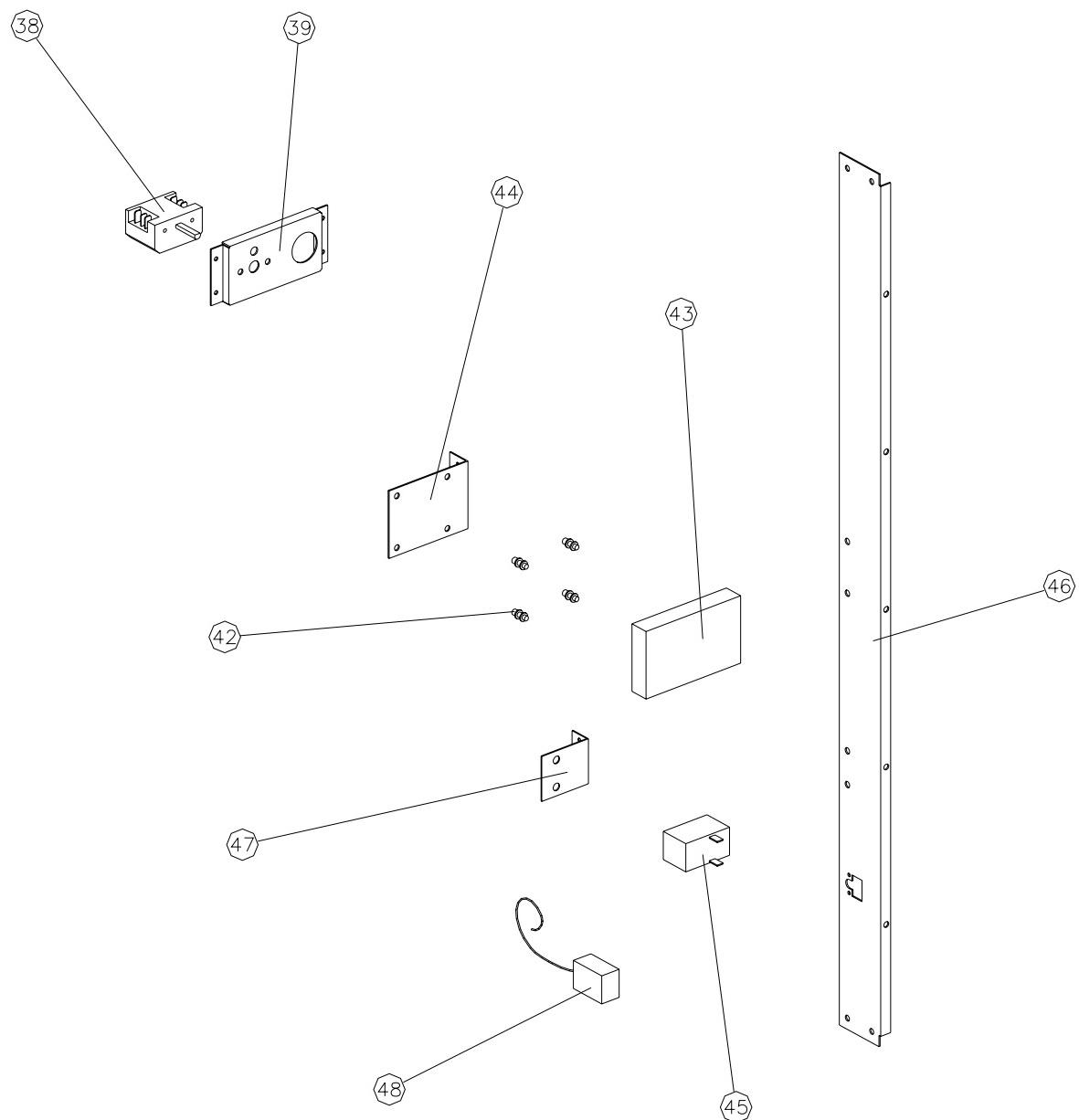
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72	020803	RACK LOCATION LOWER WA
73	025043	DOOR SEAL
74	020754	BOLT CATCH
75	023050	HINGE MOUNTING PLATE TOP ( <b>From s/n 206000</b> )
	020737	HINGE MOUNTING PLATE TOP ( <b>To s/n 205999</b> )
	020876	TOP HINGE BOLT
76	020738	HINGE BUSH
77	-----	DOOR ASSEMBLY ( <b>Refer 11.4</b> )
78	023051	HINGE MOUNTING PLATE BOTTOM ( <b>From s/n 206000</b> )
	020750	HINGE MOUNTING PLATE BOTTOM ( <b>To s/n 205999</b> )
79	-----	GEAR PLATE ( <b>Refer 11.3</b> )
80	021156	COOLING FAN
81	021157	COOLING FAN BRACKET
82	021158	HEAT BAFFLE
83	021388	CAPACITOR MOUNTING BRACKET ( <b>1Ø ONLY</b> )
84	021389	CAPACITOR SHIELD ( <b>1Ø ONLY</b> )
85	021551	CAPACITOR 10uF (H AND X) ( <b>50Hz 1Ø ONLY</b> )
	021553	CAPACITOR 20uF (H AND X) ( <b>50Hz 1Ø ONLY</b> )
	021554	CAPACITOR 30uF (H AND X) ( <b>50Hz 1Ø ONLY</b> )
	021552	CAPACITOR 12uF (P AND T) ( <b>60Hz 1Ø ONLY</b> )
	021555	CAPACITOR 35uF (P AND T) ( <b>60Hz 1Ø ONLY</b> )
86	020782	CHASSIS VERTICAL REAR LH
	021348	4" LEG ASSEMBLY ( <b>NOT ILLUSTRATED</b> )
	018724	6" LEG ASSEMBLY ( <b>NOT ILLUSTRATED</b> )
	021236	26" OVEN DOUBLE STACKING KIT ( <b>NOT ILLUSTRATED</b> )
	021237	30" OVEN DOUBLE STACKING KIT ( <b>NOT ILLUSTRATED</b> )

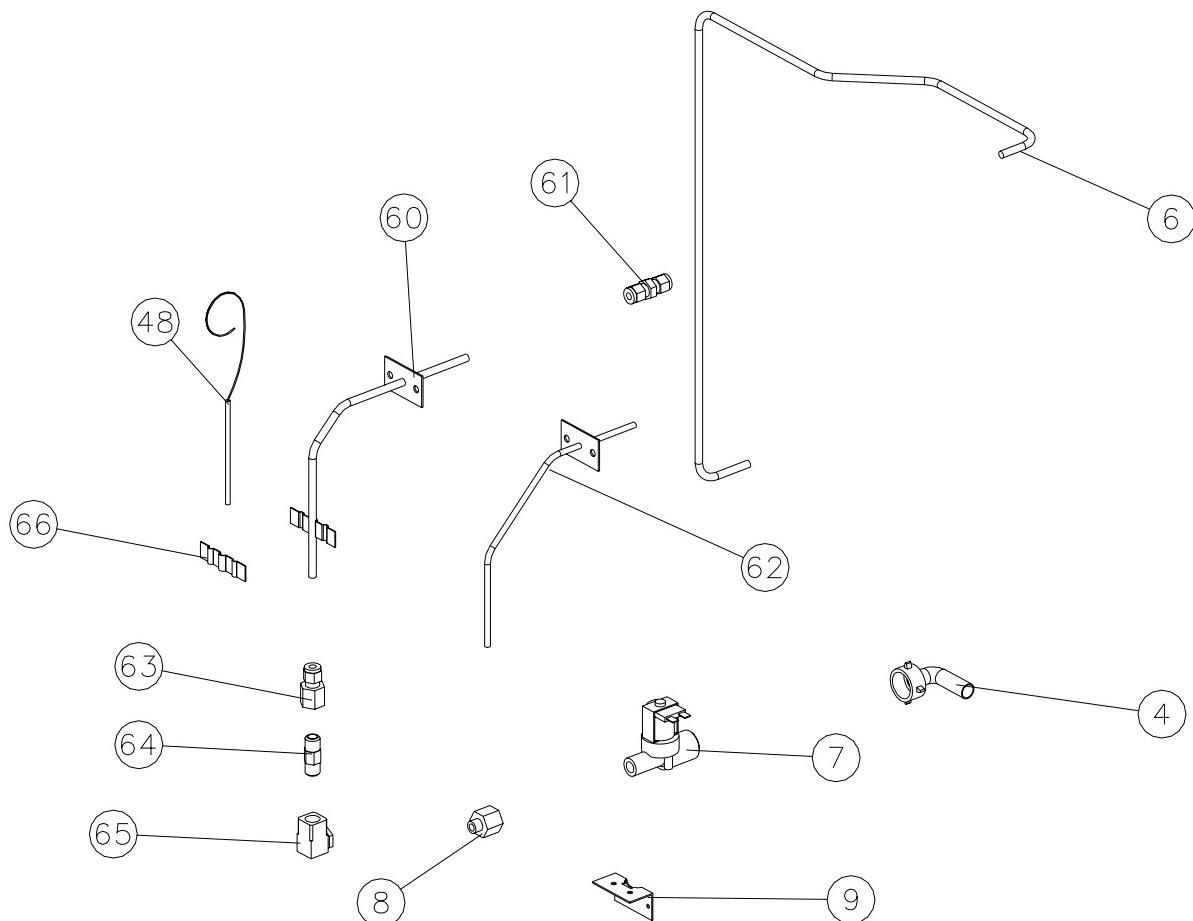
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## 11.1.2 FRONT UPRIGHT CONTROL ASSEMBLY



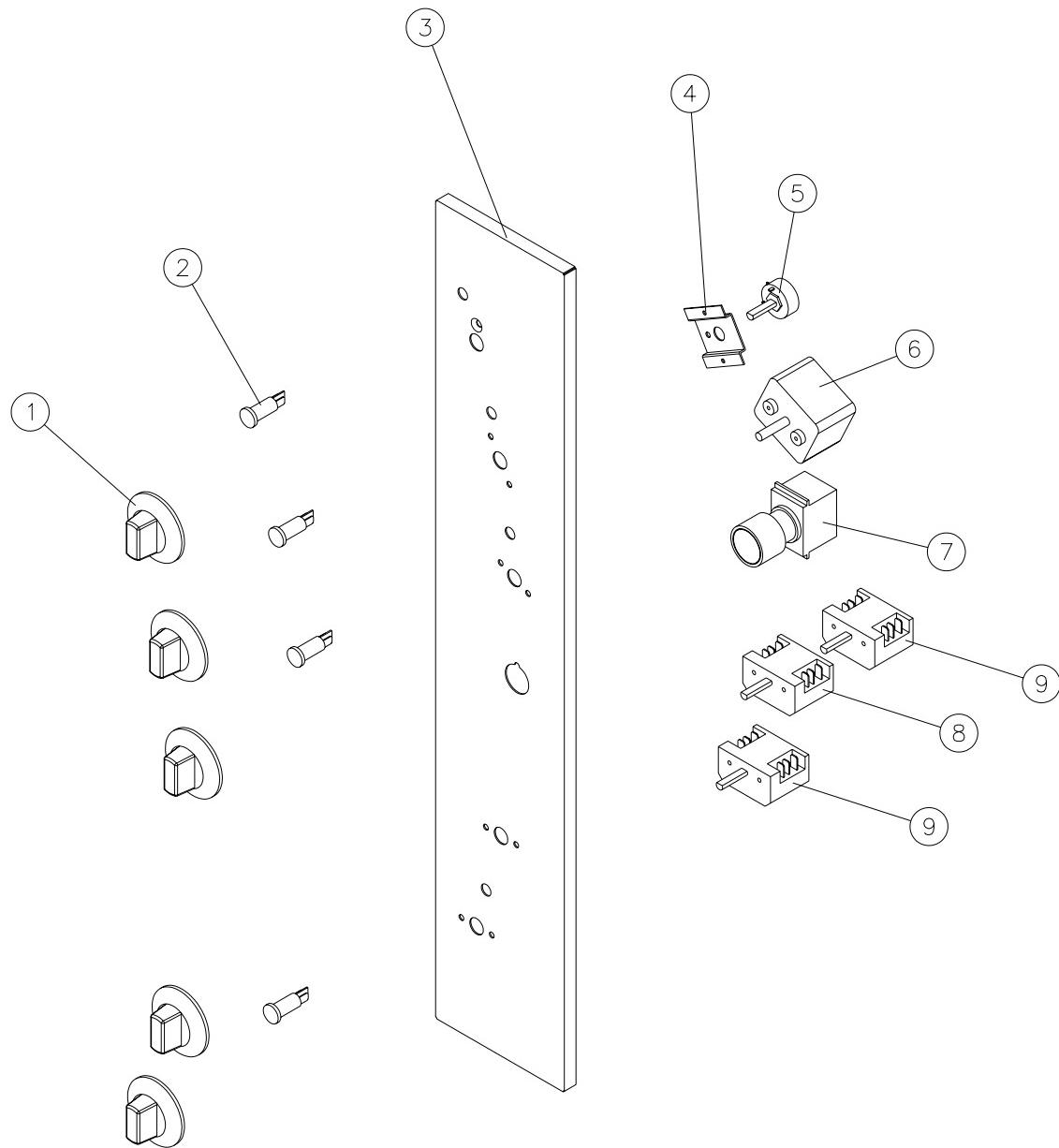
Pos	Part No.	Description
38	020822	SELECTOR SWITCH
39	020834	VENT SWITCH BRACKET
42	018768	STAND-OFF
43	020882	THERMOSTAT - SOLID STATE
44	020775	T/STAT BOARD MOUNTING BRACKET
45	011794	BUZZER
46	020783	CHASSIS VERTICAL FRONT
47	014032	BUZZER MOUNTING BRACKET
48	019369K	OVERTEMP THERMOSTAT KIT

### 11.1.3 WATER INJECTION ASSEMBLY



Pos	Part No.	Description
4	021526	WASHER INLET ELBOW ( <b>c/w WASHER</b> )
6	020860	WATER SUPPLY TUBE ( <b>E35-xxx-26 only</b> )
	020862	WATER SUPPLY TUBE ( <b>E35-xxx-30 only</b> )
7	020851	WATER SOLENOID
8	020869	CONNECTOR - $\frac{3}{8}$ "F x $\frac{1}{4}$ " COMPRESSION
9	020991	MOUNTING BRACKET
48	019369K	OVERTEMP THERMOSTAT KIT
	013506	GLAND WASHER
	013507	GLAND BUSH
	013508	GLAND NUT
	020887	SPLIT GLAND NUT ASSY ( <b>c/w Split nut, Seal &amp; Washer</b> )
	020892	GLAND BUSH MOUNTING PLATE
60	020857	STEAM TUBE WA
61	020861	COMPRESSION UNION $\frac{1}{4}$ "
62	020883K	PROBE KIT
	020856	GASKET
63	016794	MALE CONNECTOR ( <b>FROM S/N 261985</b> )
	020855	FEMALE CONNECTOR ( <b>TO S/N 261984</b> )
64	020852	CHECK VALVE ( <b>TO S/N 261984</b> )
65	020853	SPRAY BODY - WHIRLJET
	020856	GASKET
66	020890	PROBE SECURING BRACKET

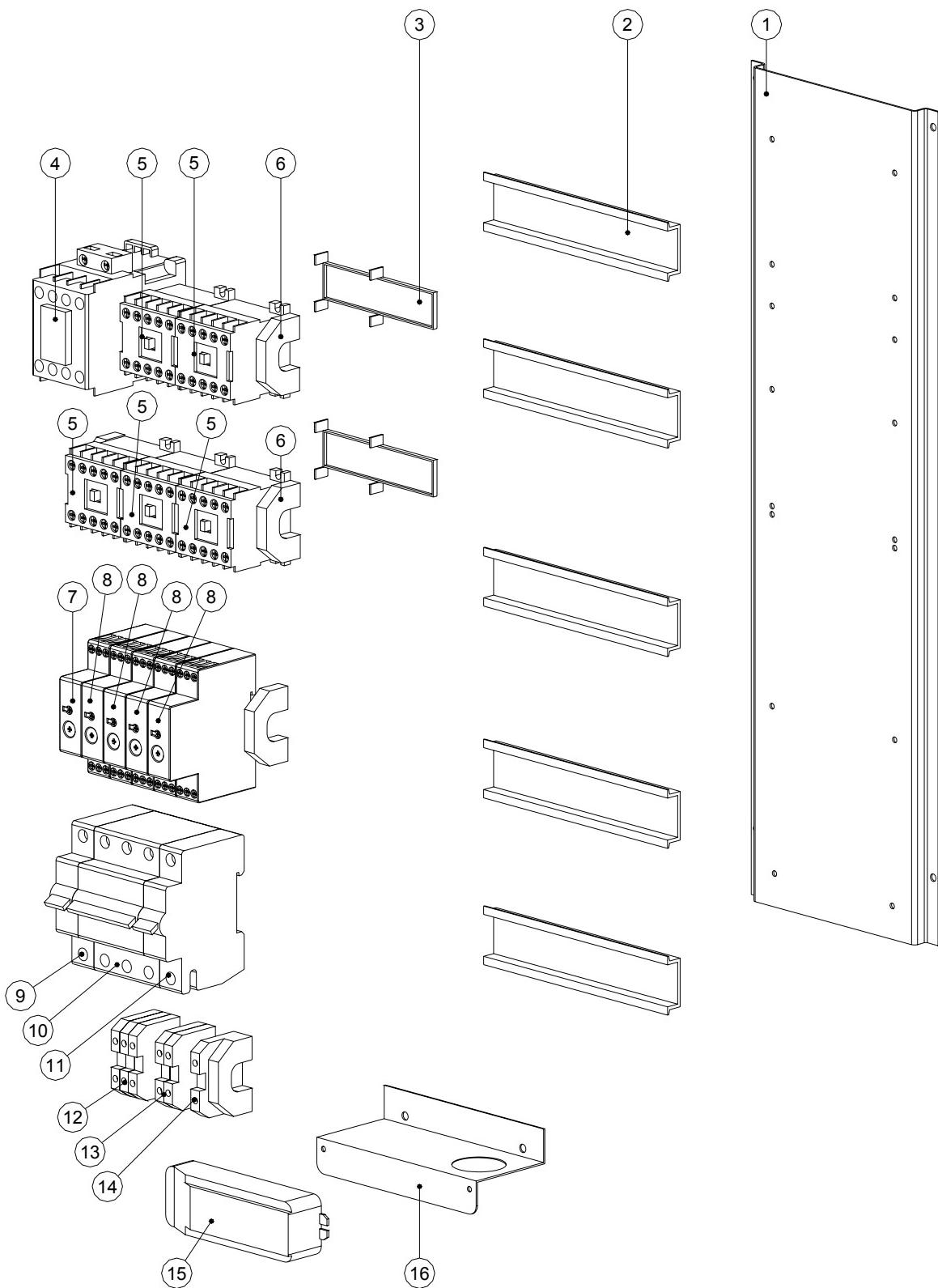
## 11.2 CONTROL PANEL ASSEMBLY



Pos	Part No.	Description
1	020823	KNOB (VENT)
	020848	COMPRESSION RING
2	020849	NEON INDICATOR
3	004705	CONTROL PANEL °F
	004706	CONTROL PANEL °C
4	020976	POTENTIOMETER BRACKET
5	020985	POTENTIOMETER
6	011760	TIMER - 60 Min
7	020893	STEAM SWITCH ASSEMBLY
8	020888	SELECTOR SW. (FAN SPEED)
9	020822	SELECTOR SWITCH (FAN SPEED & POWER)

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### 11.3.1 GEAR PLATE ASSEMBLY (3 PHASE MODELS ONLY)

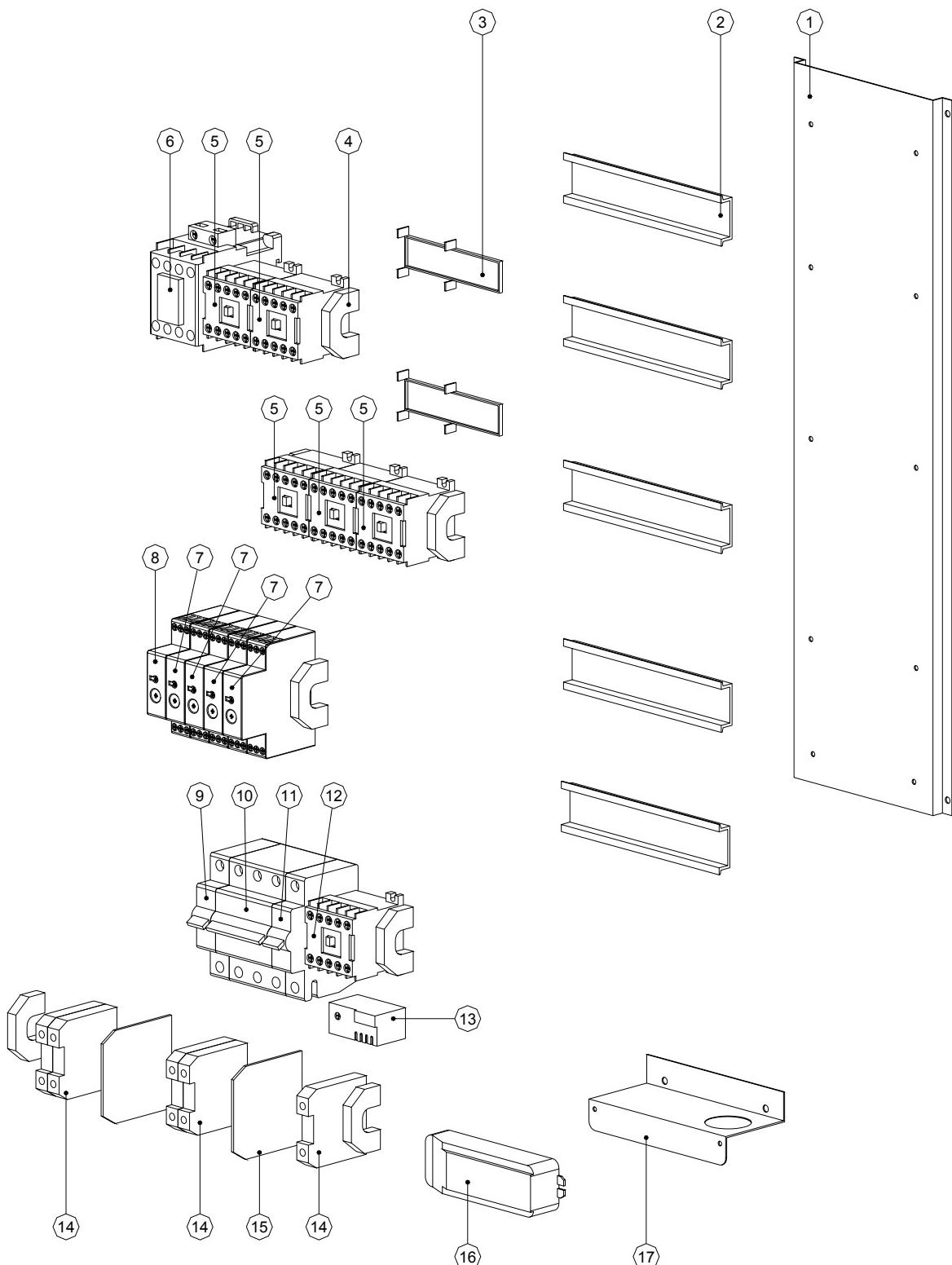


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<b>Pos</b>	<b>Part No.</b>	<b>Description</b>
1	020891	GEAR PLATE
2	020990	DIN RAIL
3	020769	CONTACTOR INTERLOCK ( <b>C2&amp;C3 AND C5&amp;C6</b> )
4	015966	HEATING CONTACTOR 50Hz
	020974	HEATING CONTACTOR 50Hz ( <b>X253 ONLY</b> )
	020772	HEATING CONTACTOR 60Hz
5	020768	MOTOR CONTACTOR
6	020995	END ANCHOR
7	020863	TIMER - FAN DIRECTION ( <b>TO S/N 204012</b> )
	023059	TIMER - FAN DIRECTION ( <b>FROM S/N 204013</b> )
8	020773	TIMER - FAN DWELL / STEAM DOSE ( <b>TO S/N 204012</b> )
	023058	TIMER - FAN DWELL / STEAM DOSE ( <b>FROM S/N 204013</b> )
9	020770	SHUNT TRIP (VYNKIER) ( <b>50Hz TO S/N 230810</b> )
	021345	SHUNT TRIP (AB) ( <b>50Hz FROM S/N 230811; 60Hz ALL</b> )
10	020776	CIRCUIT BREAKER - 3Ø 25A (VYNKIER) ( <b>TO S/N 230810</b> )
	021563	CIRCUIT BREAKER - 3Ø 25A (AB) ( <b>FROM S/N 230811</b> )
	020975	CIRCUIT BREAKER - 3Ø 40A (AB) ( <b>263 &amp; 253 UNITS ONLY</b> )
11	020777	CIRCUIT BREAKER - 6A (VYNKIER) ( <b>50Hz TO S/N 230810</b> )
	021344	CIRCUIT BREAKER - 6A (AB) ( <b>50Hz FROM S/N 230811; 60Hz ALL</b> )
12	025715	TERMINAL BLOCK - M10 RED ( <b>FROM S/N 261183</b> )
	020999	TERMINAL BLOCK - M6 RED ( <b>TO S/N 261182</b> )
13	025714	TERMINAL BLOCK - M10 GREY ( <b>FROM S/N 261183</b> )
	020998	TERMINAL BLOCK - M6 GREY ( <b>TO S/N 261182</b> )
	025716	CENTRE JUMPER - 2 POLE M10 ( <b>FROM S/N 261183</b> )
	020996	CENTRE JUMPER - 2 POLE M6 ( <b>TO S/N 261182</b> )
14	025713	TERMINAL BLOCK - M10 GREEN ( <b>FROM S/N 261183</b> )
	020997	TERMINAL BLOCK - M6 GREEN ( <b>TO S/N 261182</b> )
15	020213	LIGHTING TRANSFORMER
16	021159	TRANSFORMER BRACKET

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### 11.3.2 GEAR PLATE ASSEMBLY (1 PHASE MODELS ONLY)

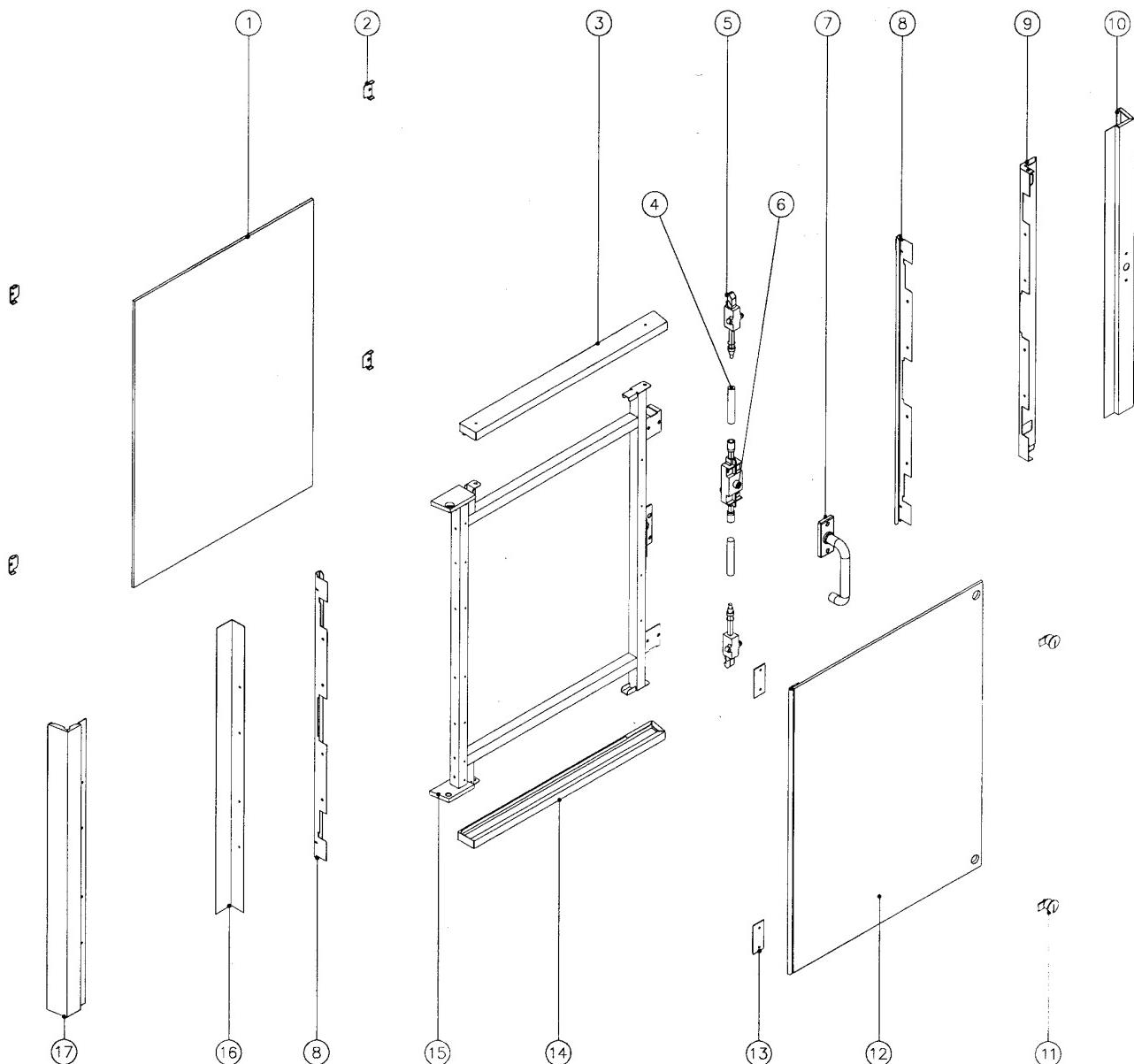


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<b>Pos</b>	<b>Part No.</b>	<b>Description</b>
1	020891	GEAR PLATE
2	020990	DIN RAIL
3	020769	CONTACTOR INTERLOCK ( <b>C2&amp;C3 AND C5&amp;C6</b> )
4	020995	END ANCHOR
5	020768	MOTOR CONTACTOR
6	015966	HEATING CONTACTOR 50Hz
	020772	HEATING CONTACTOR 60Hz
7	020773	TIMER - FAN DWELL / STEAM DOSE ( <b>TO S/N 204013</b> )
	023058	TIMER - FAN DWELL / STEAM DOSE ( <b>FROM S/N 204014</b> )
8	020863	TIMER - FAN DIRECTION ( <b>TO S/N 204013</b> )
	023059	TIMER - FAN DIRECTION ( <b>FROM S/N 204014</b> )
9	020770	SHUNT TRIP (VYNKIER) ( <b>50Hz TO S/N 230810</b> )
	021345	SHUNT TRIP (AB) ( <b>50Hz FROM S/N 230811; 60Hz ALL</b> )
10	020776	CIRC. BREAKER 3 POLE 25A (VYNKIER) ( <b>50Hz TO S/N 230810</b> )
	021563	CIRC. BREAKER 3 POLE 25A (AB) ( <b>50Hz FROM S/N 230811; 60Hz ALL</b> )
11	020777	CIRCUIT BREAKER - 1Ø 6A (VYNKIER) ( <b>50Hz TO S/N 230810</b> )
	021344	CIRCUIT BREAKER - 1Ø 6A (AB) ( <b>50Hz FROM S/N 230810; 60Hz ALL</b> )
12	022281	CONTACTOR ( <b>MOTOR START CAPACITOR</b> )
13	021562	TIMER - ON DELAY 1-30 SECOND ( <b>MOTOR START CAPACITOR</b> )
14	022295	TERMINAL BLOCK - 16MM GREY
	022297	CENTRE JUMPER - 2 POLE ( <b>NOT ILLUSTRATED</b> )
15	022296	PARTITION PLATE
16	020213	LIGHTING TRANSFORMER
17	021159	TRANSFORMER BRACKET

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### 11.4.1 GLASS DOOR ASSEMBLY

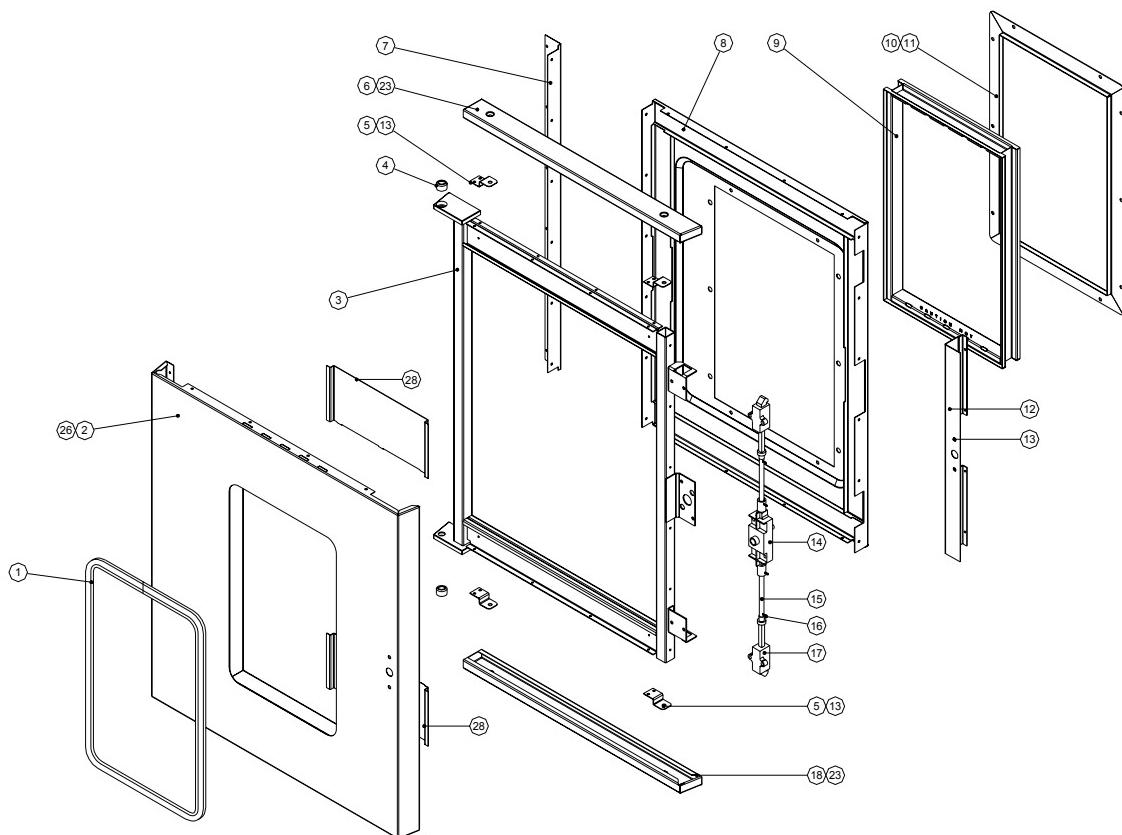


Pos	Part No.	Description
1	020713K 022314 022311	DOOR INNER GLASS GLASS SEAL INNER GLASS UPGRADE KIT ( <b>UP TO S/N 39600</b> )
2	022308	GLASS CLAMP
3	004715	DOOR COVER TOP
4	020833 047308	DOOR BOLT CONNECTING ROD SPLIT PIN - 32x3.2 ST/ST
5	020753	BOLTING ELEMENT
6	020752	HANDLE GEAR
7	020751	DOOR HANDLE
8	020865	SCREW CAP - BLACK
9	022309	GLASS SPACER TRIM
10	020730	DOOR TRIM INNER RH
11	020731 020766	DOOR TRIM OUTER RH LATCH ASSEMBLY

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12	021154	OUTER GLASS HINGED
	090014	GLASS SEAL - 750mm ( <b>INSEAL 10 x 6mm</b> )
13	021153	HINGE SPACER PLATE
14	004716	DOOR COVER BOTTOM
15	020725	DOOR FRAME
16	020732	DOOR TRIM INNER LH
17	020733	DOOR TRIM OUTER LH
	SD7031	COMPLETE DOOR ASSEMBLY

## 11.4.2 STAINLESS STEEL DOOR ASSEMBLY



Pos	Part No.	Description
1	024103	OUTER GLASS SEAL
2	024079	DOOR OUTER PANEL WA
3	004892	DOOR FRAME WA
4	020738	HINGE BUSH
5	024098	COVER SUPPORT BRACKET
6	004893	DOOR COVER TOP
7	024099	DOOR TRIM INNER LH
8	024083	DOOR INNER PANEL WA
9	024090	GLASS MODULE
10	024104	INNER GLASS SEAL
11	024087	GLASS CLAMP WA
12	024101	HANDLE SUPPORT
13	047100	NUTSERT 3/16"
14	020752	HANDLE GEAR RH
15	020833	DOOR BOLT CONNECTING ROD
16	047308	SPLIT PIN 32 x 3.2
17	020753	BOLTING ELEMENT
18	004894	DOOR COVER BOTTOM
19	041409	SCREW M5 x 25 MUSH SLOT
20	045410	WASHER M5 SPRING
21	044017	NUT M5 HEX
22	041045	SCREW 3/8 x 8 TRUSS
23	041436	SCREW 3/4 x 3/16 SD POZI BLACK
24	090005	SILICONE RTV CLEAR
25	090402	FIBREGLASS
26	044206	NUT SPIRE M5
27	041411	SCREW M5 x 16 PAN SLT 304 SS
28	024242	WINDOW VENT

## 12. SERVICE CONTACTS

### AUSTRALIA

VICTORIA - MOFFAT PTY HEAD OFFICE AND MAIN WAREHOUSE 740 Springvale Road Mulgrave VIC 3170 Spare Parts Department	Tel (03) 9518 3888 Fax (03) 9518 3838 Free Call 1800 337 963 Fax (03) 9518 3895
NEW SOUTH WALES - MOFFAT PTY Unit 8/142 James Ruse Drive Rosehill NSW 2142 Spare Parts	Tel (02) 8833 4111  Free Call 1800 337 963 Fax (03) 9518 3895
QUEENSLAND - MOFFAT PTY 30 Prosperity Place Geebung QLD 4034 Spare Parts	Tel (07) 3630 8600  Free Call 1800 337 963 Fax (03) 9518 3895
SOUTH AUSTRALIA - MOFFAT PTY 28 Greenhill Rd Wayville SA 5034 Spare Parts	Tel (08) 8274 2116  Free Call 1800 337 963 Fax (03) 9518 3895
WESTERN AUSTRALIA - MOFFAT PTY PO Box 689 Joondalup Business Centre WA 6027 Spare Parts	Tel (08) 9305 8855  Free Call 1800 337 963 Fax (03) 9518 3895

**NATIONAL COVERAGE FOR 24 HOUR SERVICE OR MAINTENANCE DIAL  
FREE CALL 1800 622 216 (AUSTRALIA ONLY)**

### CANADA

Lessard Agencies Limited PO Box 97 Stn "D" Toronto, ONT M6P 3J5	Tel (416) 766 2764 Fax (416) 760 0394 Free Call 1 888 537 7273
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### NEW ZEALAND

CHRISTCHURCH - MOFFAT LTD 16 Osborne St PO Box 10-001 Christchurch	Tel (03) 389 1007 Fax (03) 389 1276
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## **UNITED KINGDOM**

BLUESEAL LTD  
Units 6-7 Mount St Business Park  
Mount Street, Nechells  
Birmingham B7 5QU  
England

Tel 0121 327 5575  
Fax 0121 327 9711

## **UNITED STATES OF AMERICA**

MOFFAT INC.  
3765 Champion Blvd  
Winston-Salem  
NC27115

Tel 1800 551 8795  
Fax 336 661 9546

**NATIONAL COVERAGE FOR SERVICE OR MAINTENANCE DIAL  
FREE CALL 1800 551 8795 (USA ONLY)**

## APPENDIX A. STACKING KIT INSTRUCTIONS

### A. UNPACKING

Check kit includes correct parts and correct quantities for the kit purchased as listed.

ITEM	DESCRIPTION	Qty	
A	Stand Frame	2	
B	Stand side (top)	2	
C	Clamp plate	4	
D	Screw - $\frac{3}{4}'' \times \frac{1}{4}''$ hex hd	12	
	Washer - $\frac{1}{4}''$ spring	12	
	Washer - $\frac{1}{4}''$ flat	12	
E	Bolting bracket	4	
F	Screw - $2'' \times \frac{3}{4}''$ BSW hex black	4	
G	Double stack front WA	1	
H	Double stack back	1	
I	Double stack side	2	
J	Screw - $1'' \times \frac{3}{16}''$ raised CSK	4	
K	Screw - $\frac{3}{4}'' \times \frac{3}{16}''$ pozi mush	16	
L	Top sheet	2	
M	Screw - $\frac{1}{2}'' \times 8A$ pozi mush	6	
N	Vent extension WA	1	
	Vent gasket	1	
O	Connection sleeve	1	
P	Hose clamp - 3"	2	
Q	RTV clear - 150g tube	1	

Figure A.1

Figure A.6

Figure A.8

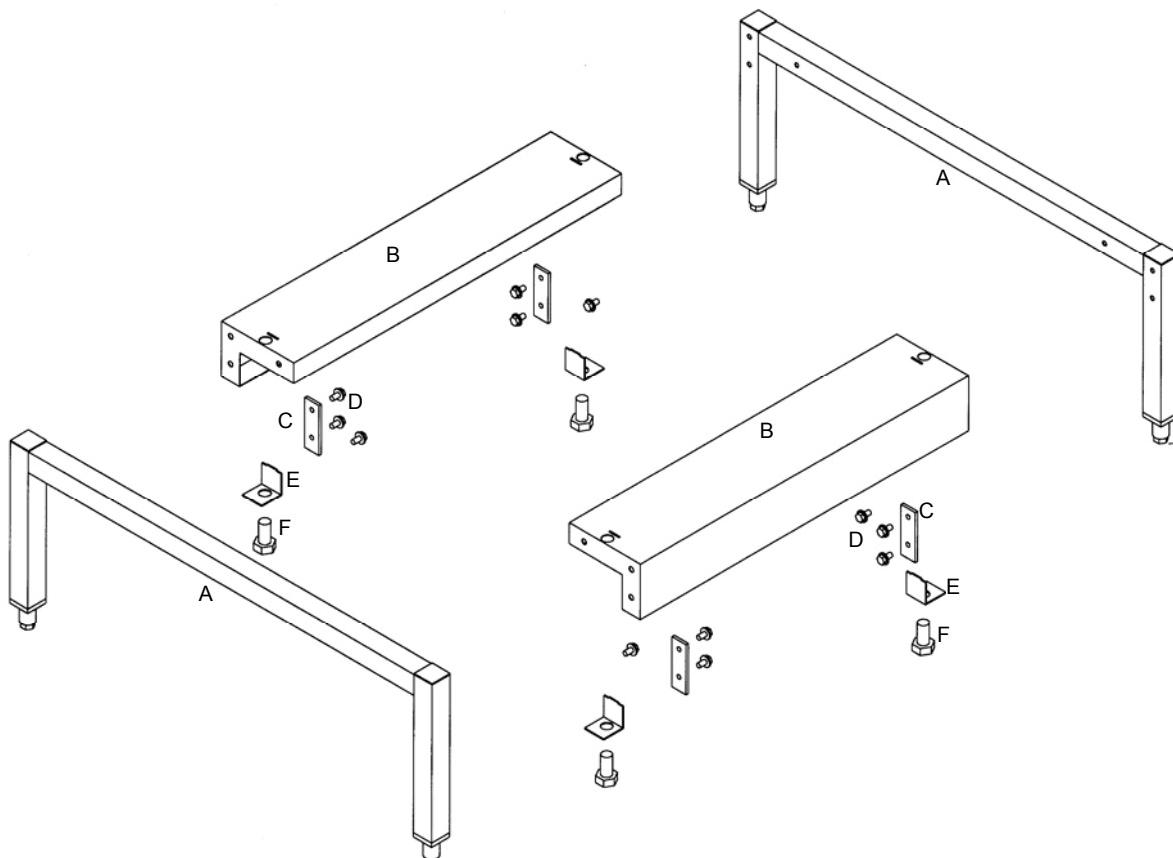


Figure A.1

## B. STAND

- 1) Place one stand frame (A) on working surface with threaded holes face up.
- 2) Fit both sides (C), to the stand frame with the screws and washers (E). Ensuring the clamp plates (D) are fitted on the upright sections inside the sides (Figure A.2).
- 3) Place the other stand frame (A) on working surface with threaded holes face up.
- 4) Turn the assembly (as in 1&2 above) over onto the stand frame.
- 5) Secure the sides to the stand frame with the screws and washers (E). Ensuring the clamp plates (D) are fitted on the upright sections inside the sides (Figure A.2).
- 6) Feet are already inserted into the ends of the stand frames.

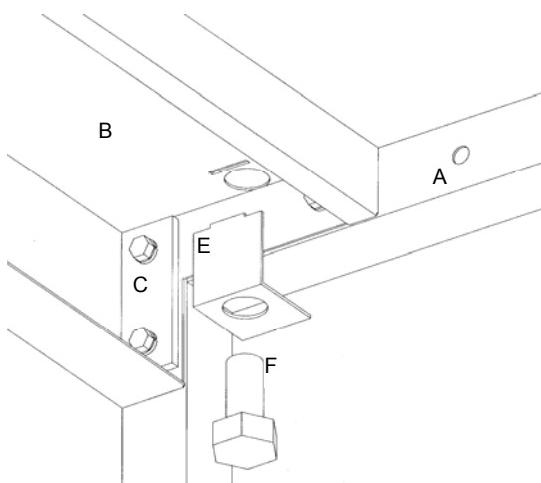


Figure A.2

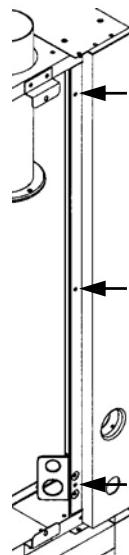


Figure A.3

- 7) Remove the 2 front top side panel support brackets, 2 screws each. (Figure A.4)

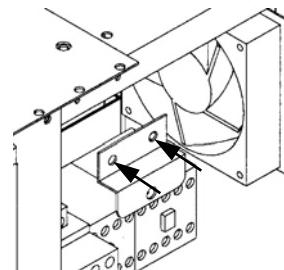


Figure A.4

## Stacking Assembly

- 8) Place insulation panels (L) onto oven top (Figure A.5) fitting into the top of the oven to cover the insulation. There are 3 screws (M) down each side to secure the 2 panels.

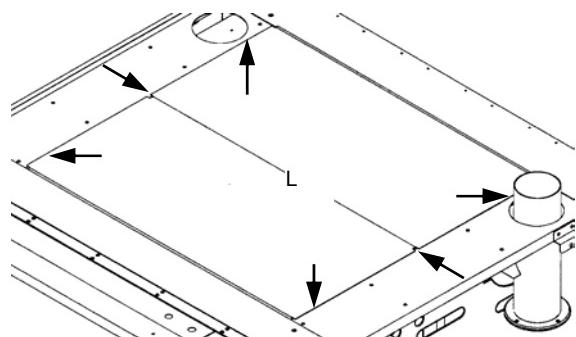


Figure A.5

- 9) Assemble loosely the front (G), back (H) and sides (I), with one screw (J) at each corner (Figure A.6), in from the sides.
- 10) Place stacking assembly on top of the lower oven and loosely attach, using 2 screws (K) in each corner of the unit (at front and back up from the sides).

## C. BOTTOM OVEN

### Onto Stand

- 1) Remove feet from oven.
- 2) Oven should be place onto stand with threaded holes in ovens foot plates lining up with holes on stand (at ends of sides B).
- 3) Secure oven using screws (F). It is essential that the Bolting Bracket (E) is correctly in position, refer Figure A.2. Bolt up through mounting bracket and stand into oven foot plate.
- 4) Adjust stand feet to level the oven.

### Remove Panels

- 5) Remove side panels from oven, each side panel is held on by 4 screws.
- 6) Remove rear RH side corner panel (power and water entry points), secured with 3 screws at front edge of panel. (Figure A.3)

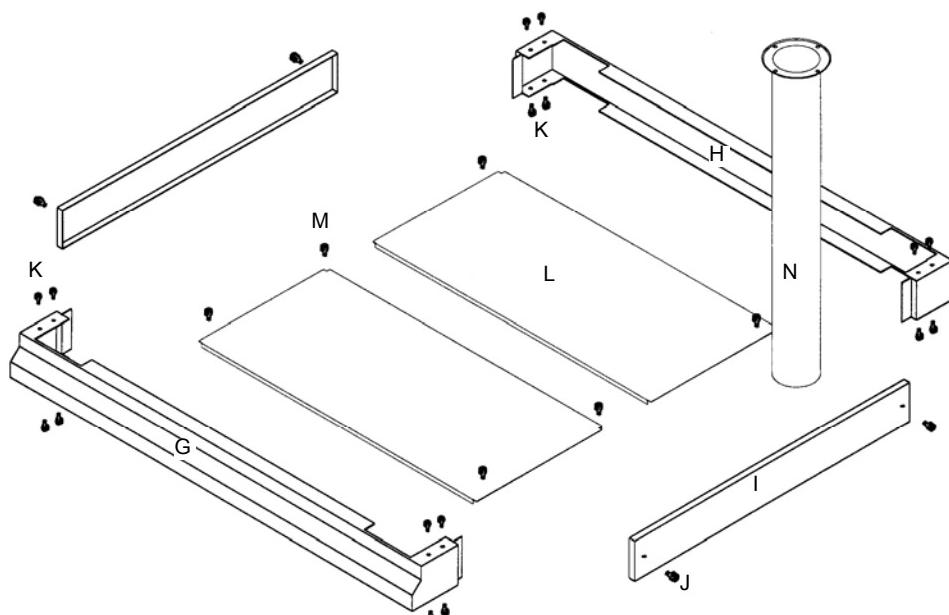


Figure A.6

## D. TOP OVEN

### Remove Panels

- 1) Remove side panels from oven, each side panel is held on by 4 screws.
- 2) Remove rear RH side corner panel (power and water entry points), secured with 3 screws at front edge of panel (Figure A.3).
- 3) Remove the 2 front bottom side panel support brackets, 2 screws each.

## E. STACKING

### Stack

- 1) Remove legs / feet from top unit and place onto bottom unit (on stacking assembly) secure using 2 screws (K) in each corner of the unit (at front and back down from the sides).
- 2) Remove the RH double stack side (I).
- 3) Remove vent bottom plate, 4 screws from underneath.
- 4) Secure vent extension (N) with 3 screws (screw closest to oven is inaccessible), using sealant provided (Q) to ensure sealed connection. See Figure A.7.
- 5) Refit the RH double stack side (I).
- 6) Tighten all screws on the stacking assembly.
- 7) Place connection sleeve (O) over join in vent using plenty of sealant (Q) between vent and sleeve, and secure using hose clamps (P). See Figure A.8.

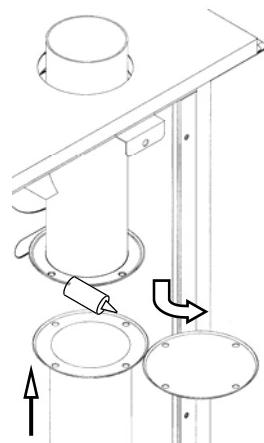


Figure A.7

### Re-assembly

- 8) Replace side cover support brackets (Figure A.4) at top front of bottom unit and bottom front of top unit, using original screws.
- 9) Replace rear RH panel (Figure A.3) on each unit using original screws.
- 10) Replace side panels, using original screws.

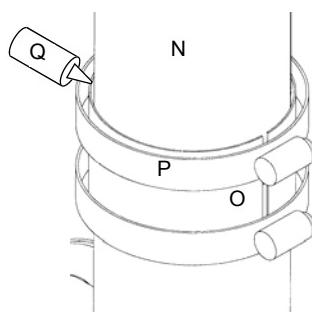


Figure A.8

## APPENDIX B. STAND MOUNTING INSTRUCTIONS

### A. UNPACKING

Check stand includes correct parts and correct quantities for the stand purchased as listed.

A26C has 'Castor Stem Sockets' in Stand Frames, not feet.

ITEM	DESCRIPTION	Qty
A	Stand frame front (Nutserts one side only)	1
B	Stand frame rear (Nutserts both sides)	1
D	Rack	2
E	Screw - $\frac{3}{4}$ "x $\frac{1}{4}$ " BSW hex hd	8
E	Washer - $\frac{1}{4}$ " Spring	8
E	Washer - $\frac{1}{4}$ " Flat	8
F	Screw - $2\frac{1}{4}$ "x $\frac{3}{4}$ " hex hd	4
	Castor (A26C only)	2
	Castor braking (A26C only)	2

### B. ASSEMBLY (diagram on reverse side)

#### Stand

- 1) Place front stand frame (A) on working surface with threaded holes and oven supports face up.
- 2) Fit both racks (D) to the stand frames (A).  
Take care which holes are used to secure the racks as inside holes in rack uprights (D) are used for 18" (460mm) wide trays, and outside holes are used for 16" (405mm) wide trays.
- 3) Turn assembly upright.

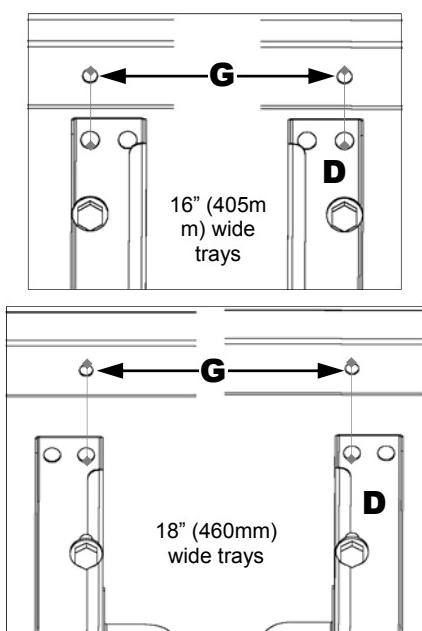


Figure B.1

- 4) Fit the other stand frame (B) with screws and washers (E).

**NOTE:** Take care which way around the frame is. For 26" oven have the oven supports facing the racks, for 30" oven have the supports (C) facing away from racks (refer figure B.2).

Take care which holes are used to secure the racks, as in 2 above.

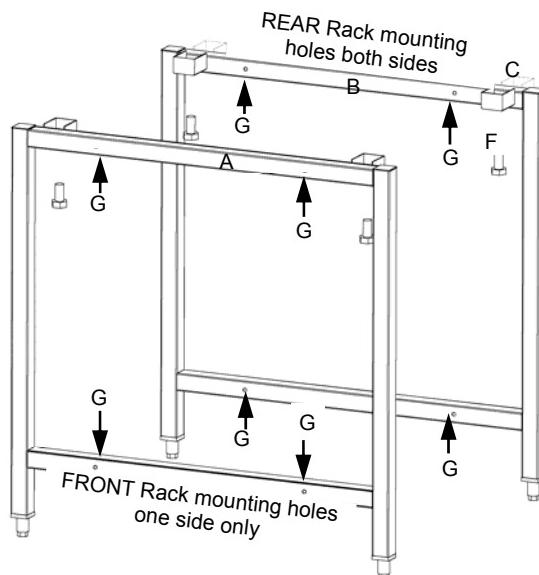


Figure B.2

- 5) A26C only. Insert castors into Stand Frames, ensure 2 braking castors are in front frame. (Front frame has nutserts in one face only)

#### Oven - mounting on stand

- 6) Remove feet from oven (if fitted).
- 7) Oven should be place onto stand with threaded holes in ovens foot plates lining up with holes in oven supports on stand.
- 8) Secure oven using screws (F).
- 9) A26 only. Adjust stand feet to level the oven.
- 10) A26C only. Ensure braking castors are in front frame.

## APPENDIX C. MOTOR CONTROL AND STEAM TIMER ADJUSTMENT GUIDE

### FS Series Timers—Settings E35 Convection Oven (Figure C.1)

Note: Superceded by FE series timers—see below.



Figure C.1

Timer	Type	Function	Time Adjust Setting	Actual Time
T1	FSF3	Fan motor direction	0.15	1.5 minutes
T2	FSD3	Steam time	0.3	10 seconds
T3	FSD3	Fan delay	0.3	10 seconds
T4	FSD3	Steam time	0.3	10 seconds
T5	FSD3	Fan delay	0.3	10 seconds

### FE Series Timers—Settings E35 Convection Oven (Figure C.2)

Note: Supercedes FS series timers.

FE series timers interchangeable with earlier FS series timers (above). Time scale settings as per listing below.



Figure C.2

Timer	Type	Function	Scale Setting	Time Adjust Setting	Actual Time
T1	FEF3T	Fan motor direction	10 minutes	0.15	1.5 minutes
T2	FED3T	Steam time	10 seconds	1.0	10 seconds
T3	FED3T	Fan delay	10 seconds	1.0	10 seconds
T4	FED3T	Steam time	10 seconds	1.0	10 seconds
T5	FED3T	Fan delay	10 seconds	1.0	10 seconds

